Investment Securities

Essential Characteristics and Values

By

JAMES R. BANCROFT

President, American Institute of Finance. Manager, Investment Department, Babson Statistical Organization, 1917-20. Instructor in Investments, Babson Institute, 1919-20. Engaged in Banking and Brokerage Business, 1907-16

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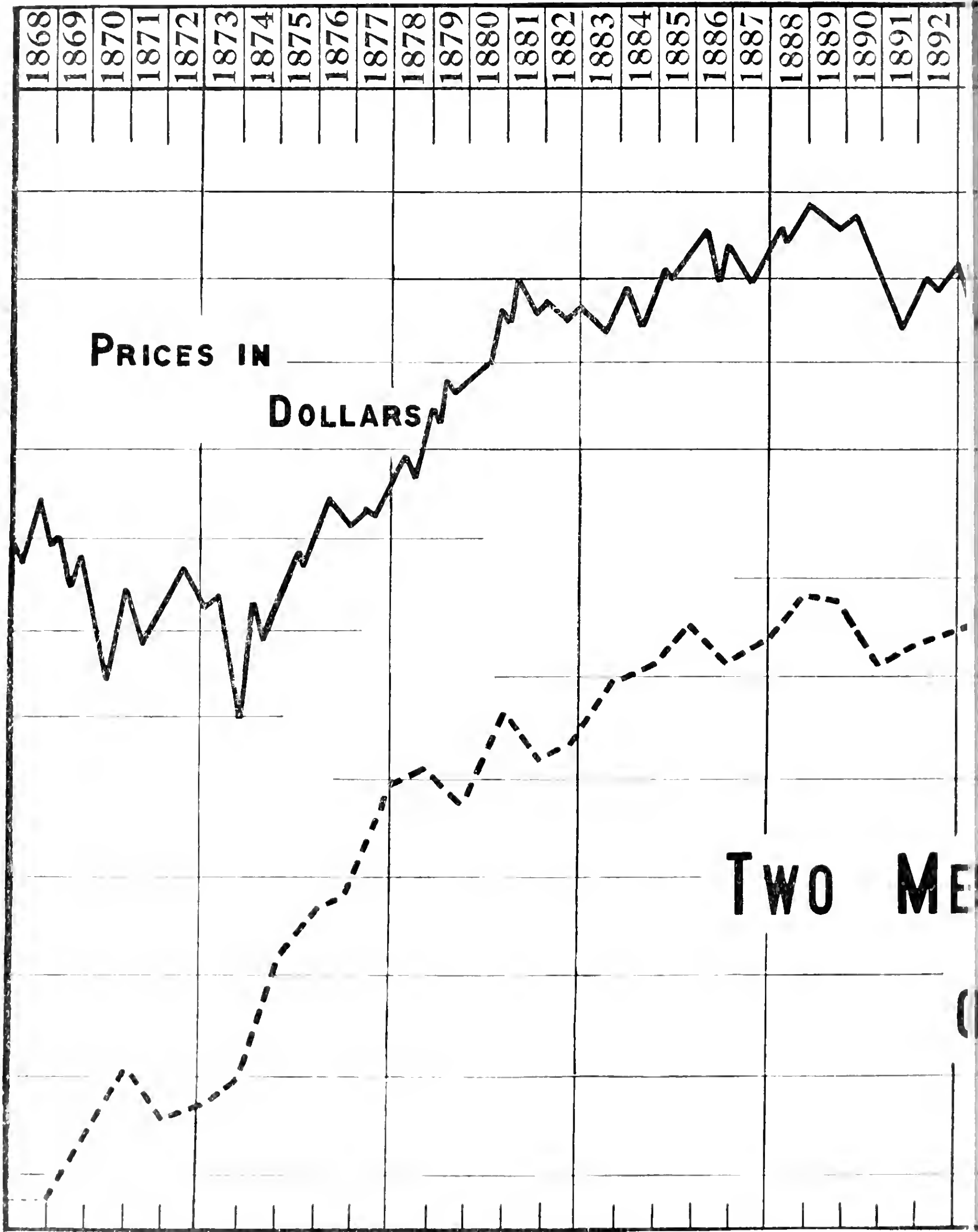

The chart above shows the trend of Investments for the fifty years, 1870–1920, from two stan
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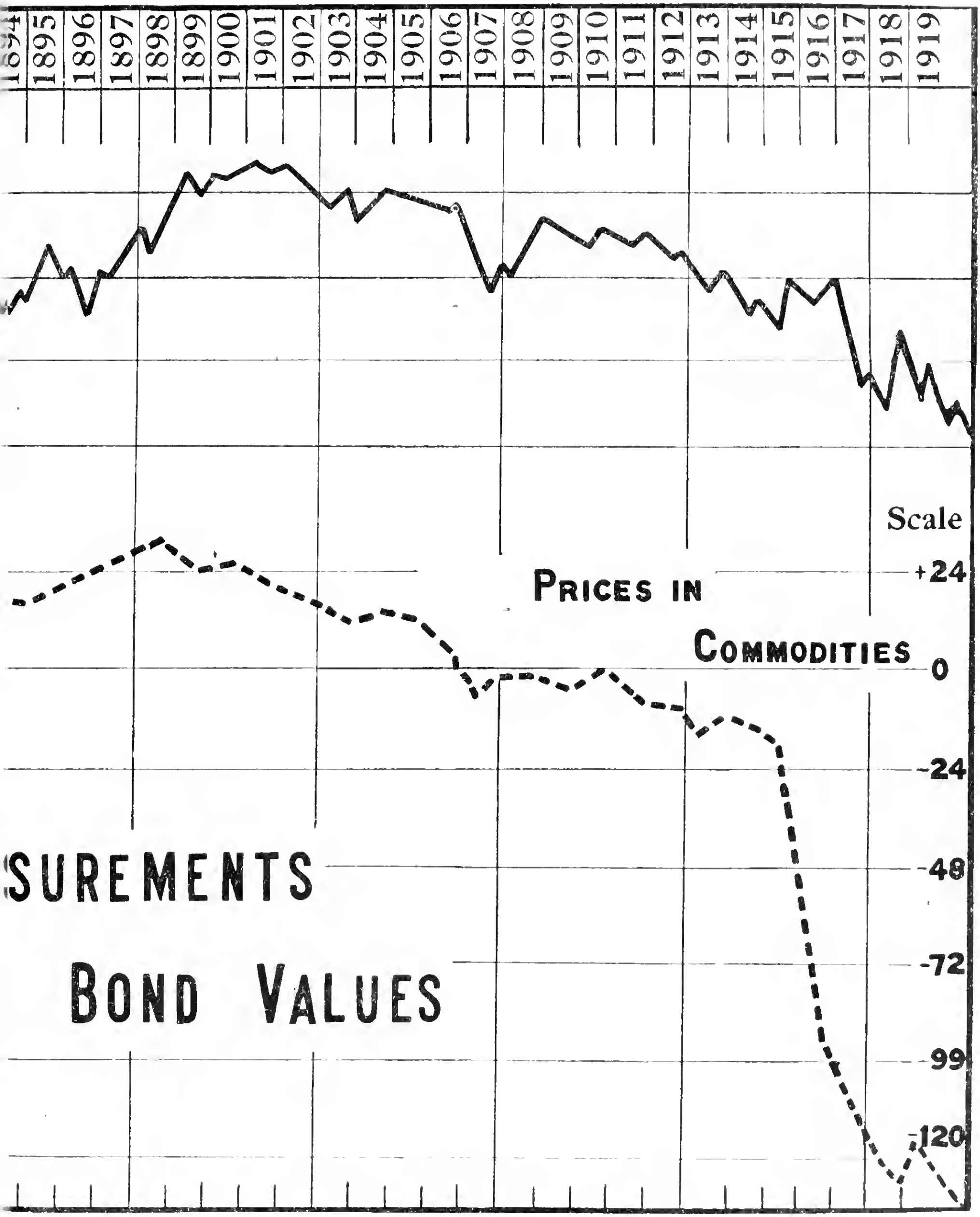

nts: first, actual price fluctuations; second, the trend in terms of what the income will buy. They
levels for bonds in terms of commodities give the real measure of opportunities that have been

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This list is arranged in the order of proper reading. The books are accompanied by a series of test questions, key problems and analyses outlines, enabling the student to apply the knowledge acquired to immediate stock market and investment conditions.

1. *Developing Financial Skill*
2. *Forces Which Make Prices*
3. *Manipulation and Market Leadership*
4. *Handling a Brokerage Account*
5. *Market Information*
6. *The Essential Features of Securities*
7. *The Value of a Railroad Security*
8. *Industrial Securities*
9. *Oil Securities*
10. *Mining Securities*
11. *Investment Securities*
12. *Business Cycles*
13. *Measuring and Forecasting General Business Conditions*
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CHAPTER I

SECURITIES AS INVESTMENTS

Purposes of Investment

Investment funds are accumulations from business prosperity or successful speculation. The desire in investing these funds is to conserve principal and by putting it to work to improve one's income. Therefore, investments are made primarily for the return they give and not for profits. For example, if any individual who has accumulated, let's say, considerable money, decides to use $10,000 in a conservative fashion, he would not think of allowing it simply to lie in a bank at a low rate of interest. If vigorous and forward-looking he would desire that such accumulated funds should earn a good return with safety. During recent years his attention would have turned to the low prices for long term investment securities. He could, for example, have purchased $10,000 West Shore Railroad First Mortgage 4's, 2361. In doing so he would have had an absolute first mortgage on a railroad property that would give him an annual return on his money of 5½% or an annual income on an investment of $10,000 of $550. It is this annual income that interests him primarily. The question of whether the market price of his investment purchase is four or five points lower than six months previous, or will be four or five points higher six months later, is not of prime importance.

It is in this way that investment differs from speculation. We must grasp this difference immediately. Speculations are made absolutely for profit. Investments are made primarily for income. While the desire to improve or at least maintain the principal of an investment must always be present in order to have the investment successful, the primary purpose is to bring in additional income.

Different Forms of Investment

Placing money in a savings bank is an elementary form of investment. The advantages of this form of investment are that, except in extremely critical times, the money can be withdrawn immediately at its full value. The price paid for this privilege is the relatively low return or income received from such an investment. Savings banks are an excellent form of investment for the uneducated individual and for the man who does not care to or is not in a position to study the fundamentals underlying investment values.

Insurance may be called another form of investment although the primary purpose of insurance is protection. The first thought of every young man with growing responsibilities should be toward this form of investment. A growing family needs protection.

Investments that give good returns, however, and which appeal strongly to the average business man, are securities and to some extent real estate. We will treat primarily of securities as investments. The strongest and most satisfactory form of investment security is bonds. A bondholder is in the same position as the lender of money. He has a direct claim against the assets of the borrower. With the increasing industrial prosperity of the past ten years, and perhaps to greater extent with the increasing income taxation of the past five years, preferred stocks have become a common form of investment. The income received by any individual from bond purchases is subject to both the federal normal and super-taxes. The income received from investments in preferred stocks, on the other hand, is exempt from the normal federal income tax. Under war and post-war taxation, the net income received from a preferred stock paying 6%, is quite a little larger than the net income received from a bond paying the same rate.

Of equal or greater importance perhaps in accounting for the popularity of preferred stocks as investments has been the tax situation of the issuing corporation. Corporations have been allowed to count money received from selling preferred

stock as invested capital. They were allowed a basic exemption on invested capital under the war excess profits tax law. Money obtained by selling bonds could not be counted as invested capital. It is simply borrowed and the company agrees to return it at a certain fixed date in the future.

The common stocks of certain properties that have paid dividends uninterruptedly for a number of years are considered investments by some individuals. Stocks of such properties are called seasoned common issues.

The risks in these various forms of investment will be discussed and carefully considered.

Bonds as Investments

Bonds with very few exceptions carry a definite promise as regards the payment of principal and interest. The bondholder simply stands in the position of a lender. For example, the owner of $1,000 Pennsylvania Railroad General Mortgage 5's, 1968, has, in effect, loaned the Pennsylvania Railroad $1,000 on which he receives a stipulated interest payment. The company also agrees to repay the principal, $1,000, in 1968. In the event of the failure of the Pennsylvania Railroad to pay either the interest on this loan when due or the principal when due, the owner has the same right of foreclosure as the holder of a personal mortgage note. In view of the form of corporate enterprise bondholders cannot and do not act individually in event of default of interest or principal. A committee who looks after the interests of the large number of scattered bondholders is formed which is called a protective committee. The principal is exactly the same, however, as in an individual loan.

Preferred Stocks as Investments

A stockholder, on the other hand, whether preferred or common is not a creditor of a corporation but is a partner in the enterprise. As stated above, a corporation or company is a borrower of money through its bonds. The bondholder is a lender. Stock certificates are merely an evidence of ownership. They certify a share in the fortunes and risks of business enterprises.

Preferred stocks, however, have come to be a broad medium of financing by corporations because of their favorable situation in regard to taxes, as pointed out above. Such financing has been made attractive to investors by surrounding preferred issues with restrictions intended to protect the purchaser. The clearest way to make this plain is by a specific illustration.

The Goodyear Tire & Rubber Company in offering its preferred stock, agreed that the dividends, which were fixed at 7%, should be cumulative. That means that in return for the stockholder agreeing to accept maximum payment of 7% the company agrees that if the full 7% dividends are not paid in any one year it, nevertheless, tries to assure ultimate payment of the full 7% and all unpaid back dividends before any distribution can be made to common stockholders. This is about as favorable an offer as could be made to preferred stockholders as they could not, being partners and not creditors, have the right of foreclosure. The Goodyear Tire & Rubber Company further agreed to maintain its assets at the equivalent of 200% of the preferred stock to be outstanding and to maintain its current assets at 110%. It agreed not to mortgage its property without the consent of 75% of the preferred stockholders and it placed a sinking fund of 2½% annually on the preferred stock issued. In other words it tried to insure the stockholder against a frittering away of its assets. It also protected the stockholder through the sinking fund, which retires 2½% of the stock outstanding annually, thus apparently constantly increasing the strength of the balance remaining. In spite of such restrictions, however, the right of foreclosure in event of difficulties was lacking, **and in the difficulties of 1921 these restrictions amounted to practically nothing. Preferred stockholders are now subject to $55,000,000 bonds and a large issue of prior preferred stock has been placed ahead of them.**

Common Stocks as Investments

Bearing in mind that a stock is simply a certificate of partnership in an enterprise, and that common stocks cannot be surrounded with restrictions as preferred stocks can, it is evident

that the purchase of common issues as investments is quite hazardous. Fluctuating earnings with periods of prosperity and depression are reflected acutely in the earnings shown on common stocks. Even stability of earning power over a number of years is not sufficient insurance of continued safety. Note, American Sugar Common. Other illustrations of this fact are the situations of the common stockholders of New Haven, Boston & Maine, Chicago, Milwaukee & St. Paul. These stocks were considered by many to be conservative investments a few years ago. Yet today none are paying dividends and all are selling for less than 50% of their par value. Common stocks furnish attractive mediums for speculation but rarely for investment.

Returns on Investments

In making investments clients will find that the majority of banking and brokerage houses give the return obtained in terms of yield. For example, if a 5% bond, due in 25 years, is offered to the investor at 80, the yield on the investment is 6.70%; but let us consider what this includes. A pencil and paper will show that a 5% bond, bought at 80, paying in other words $50 on an investment of $800, gives a return of 6.25% a year, not 6.70%. The yield of 6.70% takes into consideration that 25 years hence the investor who today buys a $1,000 bond for $800 will receive repayment of his principal, $1,000.

This yield of 6.70% cannot be figured easily by an individual. It is apparent that no portion of the $200 premium that will be received 25 years hence is obtained in any year prior to the maturity of the bond. Again in figuring the yield on a bond the presumption is made that the income received annually would be reinvested as received at the same average interest rate as the annual return. The yield on investments, therefore, can be figured only through a mathematical process. It is obtained for every-day use by referring to tables of bond values published for the purpose. The annual return on an investment, however, can be obtained simply, as shown above, by dividing the income

received by the price. When only annual return is considered by an investor in figuring his income, the approach of the bond to its par value as it nears maturity can be figured as appreciation. We feel, therefore, that in order to have an accurate account of yearly income clients ought to give greater weight to annual return in purchasing investments than to so-called yield.

CHAPTER II

DIFFERENT TYPES OF INVESTMENT BONDS

Classification by Character of Issuer

Investing is a science; speculation an art. Investing must be based on scientific principles and classification.

There are numerous ways of classifying investment securities. In order to treat the situation thoroughly we will discuss their classification from the standpoint of the issuer, from the standpoint of security, and from the standpoint of maturity. All these classifications are important. The first classification divides the types of investment securities from the most elementary point of view. The second allows the investor to study the values underlying issues offered. The third brings out the question of permanence or extent of the investment. Under the classification by character of the issuer, the principal divisions are Government Bonds, Municipal Bonds and Corporation Issues.

Government Bonds

Government bonds have always been considered the highest type of investment. To some extent, this conception has been lowered in the last four years. It has been found that under war conditions governments can put out bond issues at such tremendous rates that the credit of the respective governments deteriorates rapidly. Developments of the past five years in Europe have shown that the credit behind government bonds depends for its value on the confidence and respect which that government commands. A government at peace, having a small debt, levying comparatively light taxes on its people and expressing and satisfying the ideals and aspirations of the great mass of its people, has a high credit. Insofar, however, as

these conditions fail, public confidence fails and credit fails also. In other words, the idea that has been prevalent for a number of years, that behind the bonds of any nation are all the physical or material assets of that nation, is an illusion. Furthermore, it is not correct that the power to levy taxes against such physical wealth is behind such bonds. While the government has the legal right to levy taxes without limit, there is a limit to its power, which limit depends on the confidence and respect of its people. The real assets behind government bonds are the good will of the people and the values behind government bonds must rise and fall with the development of conditions that improve or destroy such good will.

Municipal Bonds

Municipal bonds, so-called, are bonds issued by our states, cities, counties or townships. The payment of principal and interest on municipal bonds rests on the taxing power of the issuing community. The taxes are collected in the majority of cases, by a levy against the property of the issuing municipality. This tax is levied in direct ratio to the assessed value of taxable property. Such taxable property includes all land, real and personal estates.

When municipalities issue bonds to obtain funds for properties that are self-supporting — water works, lighting plants or street railways, for example — the bonds are nevertheless supported by the taxing power against all property. An example is the money issued by the City of New York to assist in the construction of the enlarged subways, which has taken place in the last five years. Increased rapid transit facilities in any city or locality mean increased property values, and thus an increased assessment value. Hence, all property owners are taxed to provide finances.

Another form of municipal financing which is not as prominent is the issue of bonds the principal and interest of which are payable from a special tax levied only upon the property benefited. These bonds are called "special assessment issues."

Usually they cover such operations as school, highway, or drainage improvements. The credit rating of this class of bonds is not as high as municipal issues protected by taxes levied against the entire taxable property.

Corporation Bonds

Corporation bonds are our most common form of investment security. Neither government nor municipal issues carry a mortgage claim against specific property value. Corporation bonds are clearly a claim on the assets of the issuing corporation according to priority of issue. For example, a mortgage bond has the actual right of foreclosure against the particular property on which it is a mortgage. A debenture bond, so-called, while not a mortgage, still possesses, in event of difficulties, the right of foreclosure against the assets, tangible and intangible, of the issuing corporation. The tremendous commercial expansion of our country in the last twenty years has given rise to great diversification in corporation issues. Whereas, twenty years ago, the position of a corporation bond could be readily ascertained from its description, the interweaving of securities has become so marked that we feel it necessary to point out here some of the more important characteristics of the different mortgage, debenture and collateral trust bonds that are put out by our various corporations.

Classification by Security

The three most common forms of corporate bond issues available to investors are mortgage issues, collateral trust bonds and debentures. Mortgage bonds are exactly what the name implies. They are an actual lien against certain physical property which is enumerated in the indenture under which the bonds are issued. That is, mortgage issues contain an express stipulation in regard to the property against which they are a mortgage.

Collateral trust bonds are not a mortgage. They are secured on intangible porperty, that is on other stocks or bonds. An

example is the American Telephone Collateral Trust 5's, 1946. The American Telephone & Telegraph Company is a holding company owning or controlling numerous operating subsidiaries all over the United States, the majority of which are corporations having stocks and bonds of their own outstanding. It is naturally better to borrow large sums infrequently than to be in the market constantly for small amounts. Therefore, the parent corporation issues its own securities, putting up as collateral various stocks and bonds of subsidiaries. The actual security of the collateral trust bonds, it will readily be seen, depends in turn on the value of the subsidiary collateral plus the somewhat intangible credit of the holding organization. Collateral trust bonds must be carefully studied as regards the actual security or collateral deposited.

Debenture bonds are simply promises to pay. They are bonds that have the same credit rating as promissory notes. If the property has mortgages outstanding, the debenture bondholders must await the satisfaction of mortgage bondholders in event of difficulties before their position will be considered.

Different Types of Mortgage Bonds

The clearest type of mortgage security is, of course, the absolute first mortgage. We are familiar with this bond at the present time, particularly in regard to real estate. There are many real estate first mortgage issues outstanding. With the expansion of corporations and the building up of large organizations piece by piece, the "blanket first mortgage" has largely disappeared. It has returned, however, in some of our recent railroad reorganizations. The Western Pacific First 5's, 1946, an example, are a first and only mortgage on about 1,000 miles of road. The difficulty in issuing a straight first mortgage issue is clearly shown in considering the United States Rubber First and Refunding 5's, 1947. There are somewhat over $59,200,000 of these bonds outstanding. They are an absolute first mortgage on all the property of the company with the exception of the Canadian Consolidated Rubber Company, one of the smaller subsidiaries. This subsidiary has

$2,600,000 6's outstanding which do not mature until 1946. As a result, the later issue of the parent organization, the United States Rubber Company, simply became a second mortgage on that portion of the property and the bond, as a result, was termed a "first and refunding" mortgage issue.

Second Mortgage Bonds Rare

Straight second mortgage bonds have largely disappeared from existence. Some bonds which are second mortgages are given other titles. An example is the Colorado & Southern Refunding and Extension $4\frac{1}{2}$'s, 1935. These bonds are a second mortgage on about 1,072 miles of road which are covered by the first lien of the Colorado & Southern First 4's. They are, however, a first mortgage on about $32,000,000 subsidiary bonds and stock. The market value of the collateral is considerably less than its par value and the real security of the bonds is their second mortgage lien. The issue is an open mortgage, however, and a portion of the bonds are reserved for improvements and to retire the first mortgage bonds when they fall due in 1929. Hence, it is possible to give the issue the name of "refunding and extension" mortgage rather than second mortgage.

General Mortgage Issues

General mortgage bonds have become a very common type of investment. This title has taken the place of the so-called "blanket mortgage." General mortgage bonds are a direct lien upon the property of a corporation, but are subject to earlier mortgages placed either upon certain sections or upon the entire property. General mortgage bonds are usually issued in amounts sufficiently large to take care of the underlying bonds at maturity. It can be readily seen that the asset value behind a first or second mortgage bond can be quickly figured from the value of the property. The investment value of a general mortgage bond, on the other hand, depends perhaps to a larger extent upon the net earning power of the property than to its mortgage position, because, particularly when the

underlying liens are of large amount, the general mortgage issue may be quite far removed from the property. The Chesapeake & Ohio General Mortgage $4\frac{1}{2}$'s, 1992, are a typical issue. This bond is secured by a direct mortgage on about 1,480 miles of road. It is a first lien, however, on only 426 miles. It is a second mortgage on 802 miles, which mileage is covered by the prior lien of the First Consolidated 5's. It is a third lien on 252 miles. In all, it is subject to $42,560,000 prior liens. Earning power of the property is improving constantly, and the bonds have a high rating.

Refunding Mortgages

Refunding mortgage bonds, in the strict sense of the term, are bonds which have been issued to take the place of other bonds falling due which it has been felt desirable to extend rather than pay off. So far as security goes, the words "refunding mortgage" mean little. Such an issue should be examined carefully. For example, a first and refunding mortgage bond may be a first mortgage on only one-tenth of the entire property and may be a second, third, fourth or even fifth on the balance, or it may be a first mortgage on nearly all of it, like the Rubber bond. One of the well-known refunding mortgage bonds is the Chicago, Rock Island and Pacific Railroad First and Refunding 4's, 1934. This bond is secured by a direct or collateral mortgage on over 5,834 miles of road. It is, however, a direct first mortgage on only 815 miles. It is a first collateral lien on 365 miles, through the deposit of bonds and stocks of subsidiaries. Its real security is a second lien on 4,270 miles covered by the first lien of the General 4's, 1998. In all, this bond is subject to nearly $75,000,000 prior liens.

Consolidated Mortgages

A consolidated mortgage bond is theoretically a bond secured by a mortgage on the entire property of a company which is the result of a consolidation of numerous smaller properties. Here again, it may be seen that the words "consolidated mortgage" of themselves mean little or nothing, as regards security.

A consolidated mortgage may be a first mortgage bond on the consolidated property or it may be a second or third mortgage. Of late years, consolidated mortgage bonds have been created to refund or retire other issues which are prior to it, but which are not yet due, in an endeavor to consolidate the indebtedness of the company. Here again, it is of course necessary to study into the actual security behind the issue.

Prior Lien Bonds Merit Study

Prior lien is a descriptive title that is much misused. If prior lien bonds were exactly what their name indicates, they would be prior in lien, or ahead of, all other indebtedness against the property. As a matter of fact, prior lien bonds are often issued in cases where, while they become prior in lien to certain issues, they are, at the same time, subject to other issues outstanding. The latter remain prior in lien, or ahead of actual prior lien mortgage bonds. A good illustration of this is the mortgage bonds issued in the St. Louis-San Francisco reorganization. This company has at the present time nearly $120,000,000 bonds outstanding under its prior lien mortgage. These bonds are subject to approximately $14,000,000 other issues. In turn, they are actually prior in lien to Adjustment 6's, 1955, and Income 6's, 1960. While a mortgage on about 4,000 miles of road, they are a straight first mortgage lien on only 1,530.

Closed and Open Mortgages

We have spoken in the above description of open and closed mortgages. Open mortgages are to be found to a large extent in general or secondary mortgage issues. An open mortgage is a mortgage under which more indebtedness can be incurred, or in other words, under which the amount of indebtedness authorized has not yet been reached. A closed mortgage is the opposite. No further bonds can be issued under that mortgage. It can readily be seen from this that a closed first mortgage forms an extremely high type of investment. On the other hand, an open, general mortgage, while it may possess a high

degree of security, has many drawbacks. No better illustration of this can be given than recent developments under the Pennsylvania General Mortgage. This mortgage is open for large further issues of securities and has been for some time. In April, 1917, \$125,000,000 General Mortgage $4\frac{1}{2}$'s were sold to the public on a 4.70% basis. In December, 1918, \$50,000,000 General Mortgage 5's were offered on a 5.10% basis. In May, 1920, \$50,000,000 General Mortgage 7's were sold at par. The result of this continued issuing of securities under the same mortgage and under difficult conditions has, of course, reacted unfavorably against bonds previously outstanding under the same mortgage.

Classification According to Maturity

The varying needs of our corporations have caused the issuance of various types of securities according to their date of repayment. For example, some corporations desire to borrow money for only a few years believing that the growth of the business will allow repayment in a short period and a saving of interest. Other corporations financing permanent investments like our railroads, desire to obtain money for as long a term of years as possible, when money can be obtained under favorable conditions. Some corporations, believing in the future growth of the business, but not willing to incur the obligation for repayment definitely in the near future, equip their bond issues with sinking funds which retire them gradually. Others equip them with redemption features which allow the repurchase of the bond by the corporation from investors, if favorable conditions make such repurchase seem advisable.

Long Term Bonds

Long term bonds usually run from 25 to 100 years. As stated above we find long term bonds issued by corporations when conditions are favorable to borrowing money at a low rate of interest. For example, the New York Central has approximately \$350,000,000 $3\frac{1}{2}$% and 4% bonds outstanding

which are not due for about 75 years, on which it is paying a very low interest rate and which were originally sold to investors at about par. Long term bonds should only be purchased under conditions like those now prevailing, that is when commodity prices and interest rates are high. Under such conditions, few new long term bonds come into the market and the prices of those outstanding are very low. This situation will be treated in detail, in a subsequent chapter.

Short Term Notes

Short term notes are issued under directly opposite conditions. They are put out when money is high because the issuing corporation does not care to pay prevailing rates for money for any longer time than necessary. Therefore, it endeavors to make the maturity of its short term note fall at a time when refinancing conditions will be more favorable. If this is the true attitude for a corporation, it is not to the interest of the average investor to purchase short term notes when commodity prices or money rates are high as he will be faced with the necessity of reinvesting at maturity to less advantage. He should buy long term bonds at low prices and obtain permanent high returns. Under conditions like those prevailing in post-war periods we can see why large issues of short term notes are put out by corporations.

Perpetual bonds are few and far between in this country. British Consuls and French Rentes are types of perpetual bonds. They are just what the name signifies— certificates of indebtedness bearing a fixed interest but without definite maturity.

Serial and Sinking Fund Bonds

Serial bonds are bonds that are payable in installments. Serial issues are largely confined to municipal bonds. Serial bonds may be issued in anticipation of conditions in the future which will allow repayment of a stipulated portion of the principal year after year. The serial nature of a bond takes the place of a sinking fund.

Sinking fund bonds are bonds carrying a stipulation that the corporation agrees to set aside certain sums, at stated intervals, which will provide for the gradual repayment of all or part of the principal of the indebtedness. Sinking funds may be used in various ways. The corporation may be empowered to purchase bonds in the open market up to a certain amount and at a price not exceeding a certain figure. On the other hand, a stipulated price may be mentioned at which the bonds will be called in certain amounts annually. For example, the United States Steel Sinking Fund 5's, 1963, contain a provision for the calling in of a stipulated amount of the bonds yearly at 110. Bonds so retired are kept alive, that is the company continues to pay interest on them into its own sinking fund. As a result, it may be figured out that, before maturity of the bonds, the entire issue will be called in at 110. This forms a situation very favorable to bondholders.

Redeemable bonds are sometimes known as callable bonds. They are distinguished from bonds having a sinking fund in that no particular annual sum is set aside in preparation for redemption. Many times certain conditions are stipulated under which bonds may be redeemed, but, broadly speaking, redeemable bonds may be said to be issues on which the issuer has indicated the right to pay his security off previous to its actual date of maturity. Redemption figures in the majority of instances range above the face value of the bond.

Convertible Bonds

Convertible bonds have become a widely used method of financing. They are bonds which, at the option of the holder, under certain conditions, are convertible into other securities, either bonds or stocks, issued usually by the same corporation. Convertible bonds may be put out by a corporation for numerous reasons. When bonds are issued that are convertible into stock, it is usually with the idea that the development of the company in years to come will bring an earning power that will make the stock so attractive that the conversion privilege will

be taken advantage of by investors. The gain to the company is in eliminating a fixed interest charge. An interesting illustration is the Chesapeake & Ohio Convertible 5's, 1946. These bonds were convertible into the stock up to April, 1920, at $75 a share. From April, 1920, to April, 1923, they are convertible at $80 a share. Chesapeake & Ohio stock in early 1922, was paying $4 a share and selling between 50 and 60. The road was making progress, and it was entirely possible that the dividend in years to come might be increased. If this was done, it will readily be seen that the stock would become an attractive exchange for the bonds.

Convertible notes as well as bonds are sometimes issued. The idea, often, is that it would be well for the corporation to have holders of its short term obligations change into long term bonds, when conditions for the holding of long term bonds from the corporation's standpoint are more attractive than those prevailing at the time of sale of short term notes. Under such conditions, of course, the price at which the notes are convertible into long term bonds is a figure considerably above the selling levels for the long term securities at the time the short term notes were offered. The attractive feature of convertible bonds from the investment standpoint is that during periods of lax business or depression the holder of indebtedness of a corporation is in a much stronger position than the stockholder. At the same time, the convertible bondholder, thus protected, is bound to profit through the conversion privilege in any extraordinary prosperity that may accrue to stockholders during a boom period.

Coupon and Registered Bonds

We feel that before leaving this descriptive chapter, brief remarks should be made on coupon bonds and registered bonds. Coupon bonds have certificates attached calling for stipulated interest payments. These certificates must be presented for payment when the interest becomes due. Such certificates are made payable to the bearer as well as the principal of the

bond itself. Registered bonds, on the other hand, are of two forms. They may be registered as to principal and interest, or registered as to principal alone. A registered bond is similar to a stock certificate. It has the name of the owner filled in on the face and cannot be transferred from one person to another without endorsement. A bond registered as regards principal and interest bears no interest coupons. The interest is mailed to the bondholder directly as it matures, in the form of a check. The principal of the bond is collected by endorsement on the back. If a bond, however, is registered as to principal only, the coupons are attached as in the coupon bond, but the ownership of the bond cannot be transferred except by endorsement. The argument for registration of bonds is, of course, *safety*. They are not negotiable without endorsement. The marketability of the registered bond is not nearly so good as that of coupon bond as much inconvenience to holder and purchaser is caused by registration.

CHAPTER III

FACTORS AFFECTING BOND PRICES

The Initial Consideration in Investments

Safety and return are the initial considerations of all investments. Safety is the starting point. After safety is established further energies are expended in obtaining as high a return as is possible while maintaining a good degree of security. Security or safety is not, however, a fixed item. A widow, absolutely dependent upon income received from her investments, requires a wide margin of safety. In other words a degree of stability must be assured which will prevent any material change in underlying conditions over a series of years. Such investors require absolute first mortgage bonds of properties, the value of which is many times the mortgage outstanding against them. An investment of that type, while high in safety, is low in return.

A business man, a young man, looks in a different direction. With him a study of safety becomes one of degree. Too much security costs money. It brings a material loss in income. A business man's investment must have elements that insure constant improvement but it is not necessary that in the immediate future it should have such a tremendous amount of assets behind it that its security may be termed super-excellent. Therefore, in such investments a most careful study of the present and future governing forces is necessary.

In any investment we must first assure ourselves of a degree of safety sufficient to give continued interest payments. Otherwise we change from investment to speculation. With such assurance as a basis further energies should be expended toward acquiring the investment that gives us the highest return with the best outlook for future improvement.

Two Types of Influencing Factors

Given an assurance of continued interest payments and probability of constant improvement in conditions within the property, what then are the factors that affect the prices of such investment securities? If the earnings of the property are sufficient and continue sufficient to insure interest payments, it is not the month to month or even year to year fluctuations in net earning power that concerns us. What is it? There are two types of conditions that affect the price levels of investment securities. The first type are those of long duration or what may be termed PERMANENT FACTORS. The second type are those that fluctuate at relatively short intervals, changing from year to year, or at least every few years. These may be termed TEMPORARY FACTORS.

Permanent Factors

In taking up the factors that influence bond prices over a long term of years, we must first remember the primary point — investments are made for the income that they give. Investment bonds are receipts for money loaned which the borrower agrees to return at a certain specified date in the future. As a result bonds are to a large measure simply money. We know well from a study of economics that money is valuable only for what it will buy. When we speak of prices doubling we mean that the amount of goods that a dollar will buy has been cut in half. Another way of saying the same thing is that the dollar is only worth fifty cents. Likewise investments, giving a stipulated return uninterruptedly over a series of years, depend for their market value on what the income received from them will buy. In other words they fluctuate with the trend of commodity prices. When commodity prices rise the purchasing power of the income from an investment declines. Commodity prices, therefore, are one of the foremost permanent factors affecting prices of investment securities.

Investors in this country are largely people of means. We have not yet reached the position of the French people where

the relatively poor man purchases investment securities in small lots. Thrift, as such, has not yet become a national habit in the United States. It can be readily seen, therefore, that the demand for investment securities depends to a considerable extent upon the prosperity of the so-called capitalistic element in this country, and the manner in which they use their profits.

Still another factor that is permanently affecting the values of investment securities is the increase or decrease in our efficiency in production. Such increase or decrease either widens or narrows the margin of profits and also widens or narrows the increase in material wealth of the country.

Commodity Prices

When commodity prices, or the prices of all goods, are high, as at the present time, we are all aware that the purchasing power of the dollar is low. In other words, we can buy less goods for the same amount of dollars than we could ten years ago. Similarly, a $50 income on a $1,000 investment buys only about one-half as many goods as it did in the pre-war period. It is not possible to get investors to loan $1,000 today and be satisfied with an annual income of $40. With the big increase in living costs it has been necessary for them to demand a considerable increase in the annual return on their money. As a result, it follows that a constant increase in commodity prices means a constant decline in the prices of investment securities or conversely a constant increase in the return received from them.

No better illustration of this situation need be given than that of the West Shore First 4's, 2361. In 1902 these bonds sold at 116, at which level the yield was only 3%. Commodity prices were then very low. The dollar would buy a great deal and a $30 a year return on a $1,000 investment allowed a comfortable existence. The West Shore First 4's in 1920 sold around 65 to give an annual return of 6%. The return had doubled. Similarly the prices of goods that we purchase had doubled, or perhaps trebled in some instances. It is clear, therefore, that a primary factor in the price trend of investment securities is the fluctuations in the prices of goods.

What of the future? Study shows that after post-war inflationary periods like the one just passed, we enter a period of prolonged decline for goods prices. We know that we can look forward at the present time to the future with the confidence that prices of goods will tend lower. As a result the prices of investment securities will constantly tend higher. As goods prices decline and the purchasing power of the dollar increases the return offered to new investors will also decline. Hence, an unfortunate situation, from the standpoint of living costs, has meant in reality an opportunity of a lifetime for investors.

Spending *vs.* Saving

A factor that is bound to have a profound influence on the price level of investment securities is the situation in a nation in regard to spending or saving. We have had a most apt illustration of this situation right here in the post-war period. We have been through a period of extravagant expenditure. Such periods usually follow upheavals like wars. Nevertheless, such spending naturally reduces saving ability to the minimum.

There are only two ways in which we may use money. We can put it into immediate consumption or we can invest it. For this reason, there is bound to be constant competition between objects for consumption and objects for investment. The former usually win out during periods of prolonged prosperity. Business has been good; failures few and far between, and profits have been expanding. As a result, individuals have become care-free and look toward the future in a desire for personal self-satisfaction. Coincident with this development comes a natural increase in the prices for goods as the demand converges on goods rather than investments. Therefore, towards the end of a period of prosperity we see prices advancing rapidly and spending increasing, both of which have a very unfavorable effect on the prices of investment securities, the first through a decreased purchasing power of the dollar and the second through a diversion of demand.

On the other hand, let us see what happens in a period of depression. A depression is usually preceded by a panic or

crisis. Many firms and individuals fail. The world has ceased to look rosy and as a result the minds of individuals turn toward safety and serious thoughts in regard to what the future holds forth. Under such conditions, the abnormal demand for goods for current consumption declines abruptly. Prices follow. Gradually, as competition for business increases, and profits narrow as a result of that factor and lower prices, minds turn to security first of all. The result is a concerted saving and resulting demand for investment securities. For this reason we find the prices of high-grade investment issues advancing when general business is depressed and speculative securities lifeless or declining.

Efficiency in Production

Still another development that exerts a considerable influence on the long time price level of investment securities is "efficiency in production." The reason for this is that an increase or decrease in the efficiency of production raises or lowers the excess of production of new wealth. This naturally widens or narrows investment purchasing power. Industrial development of the past thirty years and the increased productivity of labor has certainly resulted in increasing the surplus wealth which remains in the hands of business enterprisers. This has been done largely through the development of labor-saving machinery and through the formation of efficient industrial establishments as the Ford Motor Company. Here raw labor has evolved into a sort of semi-skilled technique.

Some may say — if this condition has developed under the tremendous improved technique of American industry in the last fifteen years, why has there not developed a very broad demand for investments from business enterprisers that would have offset the declining tendency that has prevailed in investments? The answer is that this factor is not as powerful as the factor of commodity prices. Furthermore, at least for the time being, the increase in surplus wealth has been used in spending for current needs rather than for investing. It can be readily

appreciated, for example, that if many of our successful business men had devoted their surplus earnings of the past five years to purchasing bonds rather than automobiles or jewelry, the depression of 1920–21 would have been less drastic.

Forecasting Long Term Developments

The question then before the prospective investor is two-fold. Under what conditions are we standing and how is it possible to forecast the future ebb and flow of developments underlying bond prices? We have recently experienced one of the most favorable investment opportunities that has ever been seen. The combination of tremendously high commodity prices, coupled with an era of extravagant spending, made it necessary for everyone to obtain an abnormally high income, and investment securities were on a very low level.

What of the future? Fortunately the ebb and flow, so-called, of the permanent factors above mentioned, does not come and go with rapidity. The broad fluctuations in commodity prices in this country over the last hundred years have occurred in periods of from 20 to 25 years duration. For example, from the beginning of the Spanish War and the birth of business combinations to 1920, commodity prices have tended upward. Prior to 1906 the advance was very slow. In the next six years it was very rapid. The rapidity of the advance denoted its culmination. A study of previous post-war conditions and the extent of the recent period of rising prices denotes that the turn of the post-war period of inflation is permanent. Over a period of years we should see a period of gradual but persistent readjustment in which commodity prices will slowly but steadily decline.

Similarly, past history shows that periods of reckless spending are in turn followed by periods of what may be termed extreme conservatism. The average man spends freely only as long as the future looks bright. Having entered a drastic readjustment period we can rest assured that after the first ill effects are passed over and we are well in an era of depression

the desire for spending will be replaced quickly by a desire for conservation and a steady return on the principal owned.

The third factor is that of increased efficiency and production. We can look forward to a constant increase in this factor in this country with more than expectation. Post-war eras in this nation have always brought out new inventions. In the years to come developments should be along the lines of a more thorough knowledge and utilization of the human being. It has been found that by better thought-out and scientifically planned treatment the average individual production can be increased tremendously. The last twenty years has witnessed a large increase in productive facilities through improved machinery. The next twenty years should see it through improved human beings.

Temporary Factors Affecting Bond Prices

Changes in the temporary factors affecting bond prices naturally occur more frequently and at shorter intervals than do the permanent factors mentioned above. The factor of most immediate influence in bond values is the current interest rate. Under normal conditions interest rates have a seasonal fluctuation. Money is usually easy during February and again in the summer months. Naturally at such periods one would expect to find the bond market improving somewhat. As a matter of fact the bond market usually does improve during the months of May, June, and July. The February improvement is not so marked because in spite of high interest rates in January there is a demand for investment securities on account of the reinvestment of January funds which tends to sustain prices. Such movements, however, concern the average investor only slightly and there are often times when an extreme movement in interest rates either one way or the other, which is known to be temporary, has little or no effect on the prices of investment securities.

Prosperity and Depression

The broad trend of the prices of investment securities is not

interrupted by minor periods of prosperity or depression because, as explained before, investment securities properly chosen give an uninterrupted income and are therefore not particularly affected by either an advance or decline in earnings. On the other hand, periods of prosperity and depression do have a temporary effect on the prices of investment securities because of their relation to the entire security holdings of an individual. During a panic, for example, bonds sometimes decline because, in an endeavor to protect the equity in speculative securities, an individual may be forced to sacrifice his investment holdings. As a result, temporarily, the excess of offerings over bids causes a drop. Shortly, however, lower commodity prices and a change from an orgy of spending to careful saving right the situation. On this account, bonds always recover quickly from any so-called panic or crisis. During a period of prosperity, bonds are the first security to weaken and give signs of the approach of the end. This is readily explained when the relation of bonds to interest rates is considered. The end of any period of prosperity comes because the persistent expansion in business gradually uses up the supply of available capital. As this condition develops interest rates advance rapidly. Bond prices react because they feel acutely any change in interest rates and commodity prices, which in turn lower the purchasing power of the income received.

Effect of Taxation on Investments

We have given taxation an individual position. Up to a comparatively few years ago it was a factor having little effect on bond prices. With the developments of the war period, however, it has become a permanent factor affecting bond values. The result of direct or indirect taxation is to increase the average return on investments or in other words to lower the price of old issues. The reason for this, of course, is that a certain portion of the income, either directly or indirectly has to be forfeited. The natural action of any investor is to enlarge his income so that the portion remaining will give him the

TAX-FREE *vs.* TAXABLE BONDS

UNDER FEDERAL INCOME TAX RATES AFFECTING 1919 INCOME

Under the tax law affecting 1919 income, taxable bonds are subject to taxes ranging from 4% to 73%, according to the amount of income. This table shows the yield which taxable bonds must give to equal the return from tax-free bonds yielding from 3½% to 7%. Example: Individual with income of $50,000 purchases a taxable bond to yield 6.52%. His tax on 1919 income from this bond is at rate of 31% (normal tax, 8%, plus surtax on income between $48,000 and $50,000, 23%), leaving actual income of 4½%. Rates of interest given at top of columns represent yield from tax-free bonds. The equivalent yields from taxable bonds are given below for various amounts of income. While it is believed that the figures in the table are correct, their accuracy is not guaranteed.

Income	Tax	3½%	4%	4¼%	4½%	4¾%	5%	5¼%	5½%	5¾%	6%	6½%	7%
$10,000	11%	3.93	4.49	4.78	5.06	5.34	5.62	5.90	6.18	6.46	6.74	7.30	7.87
15,000	14%	4.07	4.65	4.94	5.23	5.52	5.81	6.10	6.40	6.69	6.98	7.56	8.14
20,000	16%	4.17	4.76	5.06	5.36	5.65	5.95	6.25	6.55	6.85	7.14	7.74	8.33
25,000	19%	4.32	4.94	5.25	5.56	5.86	6.17	6.48	6.79	7.10	7.41	8.02	8.64
30,000	21%	4.43	5.06	5.38	5.70	6.01	6.33	6.65	6.96	7.28	7.59	8.23	8.86
35,000	24%	4.61	5.26	5.59	5.92	6.25	6.58	6.91	7.24	7.57	7.89	8.55	9.21
40,000	26%	4.73	5.41	5.74	6.08	6.42	6.76	7.09	7.43	7.77	8.11	8.78	9.46
45,000	29%	4.93	5.63	5.99	6.34	6.69	7.04	7.39	7.75	8.10	8.45	9.15	9.86
50,000	31%	5.07	5.80	6.16	6.52	6.88	7.25	7.61	7.97	8.33	8.70	9.42	10.14
60,000	36%	5.47	6.25	6.64	7.03	7.42	7.81	8.20	8.59	8.98	9.38	10.16	10.94
70,000	41%	5.93	6.78	7.20	7.63	8.05	8.47	8.90	9.32	9.75	10.17	11.02	11.85
80,000	46%	6.48	7.41	7.87	8.33	8.80	9.26	9.72	10.19	10.65	11.11	12.04	12.96
90,000	51%	7.14	8.16	8.67	9.18	9.69	10.20	10.71	11.22	11.73	12.24	13.27	14.29
100,000	56%	7.95	9.09	9.66	10.23	10.80	11.36	11.93	12.50	13.07	13.64	14.77	15.91
150,000	60%	8.75	10.00	10.63	11.25	11.88	12.50	13.13	13.75	14.38	15.00	16.25	17.50
200,000	64%	9.72	11.11	11.81	12.50	13.19	13.89	14.58	15.28	15.97	16.67	18.06	19.44
300,000	68%	10.94	12.50	13.28	14.06	14.84	15.63	16.41	17.19	17.97	18.75	20.31	21.88
500,000	71%	12.07	13.79	14.66	15.52	16.38	17.24	18.10	18.97	19.83	20.69	22.41	24.14
1,000,000	72%	12.50	14.29	15.18	16.07	16.96	17.86	18.75	19.64	20.54	21.43	23.21	25.00
over 1,000,000	73%	12.96	14.81	15.74	16.67	17.59	18.52	19.44	20.37	21.30	22.22	24.07	25.93

same purchasing power as before taxation. Another development is that, as taxes increase by leaps and bounds, there is a tendency for an investor to switch from taxable securities into tax exempt issues. This in turn, of course, assists in bringing about a gradual decline in the level of taxable investments. This attempt to escape taxation has been the source of considerable loss. Securities of inferior character which have some tax exempt features are often purchased with unfortunate results.

Another factor adverse to taxable bonds under prevailing conditions has been the federal laws which allow an investor to deduct, from his income, losses that he may have on securities. This has resulted in heavy sales of investment securities near the turn of the year to establish such losses and the purchase of non-taxable issues in their place. As is usual, however, much of this is ill advised. The position of non-taxable and taxable investments under recent tax laws is shown clearly in the table preceding. It is questionable today if, in view of the probability of lower commodity prices and other improving permanent conditions under bond values, it would not be better for the investor with an income of $50,000 a year or less to shun non-taxable securities after having purchased his quota Liberty $4\frac{1}{4}$'s that can be held non-taxable and purchase taxable corporation bonds. This deduction is not given because any material reduction in taxation is expected over the next few years, but because the fundamentals underlying bond prices should improve materially in the future and because such an improvement will find greatest reflection in the securities that have suffered the greatest depressing influences.

CHAPTER IV

THE TREND OF BOND PRICES

Temporary and Long-swing Movements

Just as the factors that affect bond prices must be divided into two classes, temporary and permanent, the trend of bond prices must be divided into two phases, the temporary and the long swing. Temporary movements of prices are naturally influenced by the changes in such factors enumerated in the previous chapter, long-swing movements by the permanent factors.

The Temporary Cycle Movement

We will start, for example, early in a period of depression: let us say the short depression immediately following the panic of 1903. At that time, bond prices were on a low level, brought there through the extreme liquidation of the panic of 1903. This was called the panic of undigested securities. Immediately after the liquidating movement had dried up, business declined perceptibly while banking reserves and deposits increased rapidly, due to small demand for money and goods. As a result of these conditions money accumulated and interest rates declined. Commodity prices fell because slack business brought increased competition and price cutting. Let us now remember that the big factor always underlying the movement of bond prices is the purchasing power of the income received from them. The above developments bring an increase in the purchasing power of the dollar. Therefore sound bonds, the interest requirements of which are covered by a good margin in depression periods as well as prosperity, began to advance soon after the brief depression of 1903–1904 set in.

In the course of a few months business liquidation was com-

pleted. We then again started on the upward leg of the business cycle which has been described by Dr. Hickernell in his text, "Business Cycles." During this improving business movement, bond prices were showing a continuation of the advance begun. The purchasing power of the average individual was enlarged in the depression period, and as a result, the demand for bonds broadened.

Bond Prices First to Decline

This improvement for a time was coincident with the natural advance in the stock market that goes on in such a period. In the intermediary or early stages of the period of prosperity bond prices are much higher than in any other period. As the volume of business expands rapidly and prosperity abounds, the demand for both goods and money naturally enlarges. As a result, interest rates advance sharply and commodities, to some extent, as demand exceeds supply. In other words, the purchasing power of the dollar diminishes perceptibly. This was the condition that prevailed in 1906. This cutting down of the purchasing power of the dollar diverts investment demand from bonds to securities having speculative possibilities. As a result, a wave of speculative enthusiasm ensues, as in the last months of 1906, and bond prices decline. We have, therefore, the barometer of declining bond prices as one of the first indications of the approaching end of a period of prosperity. The stock market was very strong late in 1906, but the bond market showed a distinct weakness. The movement of bond prices dealt with above, such as 1903–1906, are really inconsequential as far as the long swing movement of prices go, and do not concern investors as vitally as the latter.

The Long Cycle Movement

The rise and fall of commodity prices and interest rates along the lines indicated above are comparatively narrow under normal conditions. Only in periods like that which we have just passed through do they become sufficiently prominent to

attract widespread attention. The movements of commodity prices and long time interest rates over a period of years are, however, very wide. Let us take into consideration the fluctuations in the purchasing power of the dollar in this country since the Civil War, which is our most interesting period.

The end of the Civil War found the United States in a period of inflation and expanded prosperity, similar in many respects to the one recently prevailing. As a result, at that time, as recently, United States Government bonds sold on a high yield basis. Our strongest first mortgage railroad issues could have been bought to return from 7% to 7½%. The inflation ended in the extreme depression of 1873. Then the country entered a prolonged period of decline in commodity prices which did not culminate until the depression of 1893 to 1897. In the period immediately following the Civil War, or from 1865 to 1870, the pendulum had swung to the opposite extreme from that prevailing some twenty years before. In the twenty or thirty years following the Civil War the pendulum again swung back. In other words, the complete cycle of prices took about fifty years to complete. Likewise, in 1920, fifty years approximately from the Civil War period, we were at the extreme of high prices.

The Period of 1865-1895

In the post Civil War period many arguments for continued high prices, similar to those recently used, prevailed. It was argued that, as the war had destroyed so much wealth, the country had permanently entered on a period of high prices. Just as our circulating medium has now been increased tremendously, the purchasing power of the dollar at that time had been cut down by the same medium and through the large discoveries of gold just previous to the Civil War. However, bond prices reached an extreme low level about a year after the end of the war. They improved somewhat in the next five or six years, reacting with the financial collapse of 1873. From that point on, however, as the broad cycle of declining prices developed, they showed a persistent advance which did not culminate until

the period coincident with or immediately following the depression of 1897.

The Period of 1893–1898

In the years 1893 to 1898 the country experienced conditions just opposite to those prevailing in 1865 to 1870. Owing to extended deflation and over-expansion the production of many portions of our industrial life had exceeded demand, prices were very low, and money was going a-begging. Needless to say speculative enterprise was at a minimum. Under such conditions investors sought safety as a primary essential. As a result, four percent bonds were commanding prices better than 100 cents on the dollar. *Contrast that with the situation in 1865–1870.* The growing difficulties of the previous twenty years had brought about many railroad reorganizations. As a result, much new capital was needed. Roads like Northern Pacific, New York Central, Norfolk & Western, and Kansas City Southern were fortunately able to take advantage of money conditions prevailing, and issued 50 and 100 year bonds on a very low return basis. The New York Central $3\frac{1}{2}$'s, issued in 1897, were eagerly sought in the next few years at 10 points premium above their face value, or on a 3% basis. Needless to say, under such conditions the majority of corporations issued long term bonds rather than short term notes. The ability of many of our railroads to sell such issues at that time has been a tremendous backlog for them during the last twenty years of advancing interest rates.

The Period of 1900-1920

Immediately following the improvement in industrial conditions of the early 1900's this country entered upon a prolonged industrial expansion. Up to 1906, this expansion had little effect on prices. Since 1906, however, commodity prices have shown a continuous advance culminating in a rapid upward movement both in the war and post-war period. The recent sharp advance was largely the result of currency inflation. As

a result, the purchasing power of the dollar has been cut in half. During the early years of this period, bond prices, as viewed from the long swing, showed little change, but in the past fifteen years, they have shown an almost constant depreciation. The advance in commodity prices and interest rates during the post-war period, has been so rapid that prosperity and improving industrial conditions were entirely nullified as bullish factors on bond prices. As a result, bond prices have shown a practically steady depreciation since 1916 in face of a general large increase in earning power behind them. The total result of this is that bonds have once more been brought back to the levels prevailing in the post Civil War period. Government bonds may be bought on nearly a 6% basis, while strong railroad issues have been offered to yield 7%.

The Chance of a Lifetime

The combination of a tremendous increase in demand for goods, plus a large increase in our circulating medium, accompanied by a stable production, has given us once more an investment opportunity which the writer in his work has called "The Chance of a Lifetime." A simple study of the history of bond prices, as shown by this chapter, is sufficient to make it clear that an opportunity like the one now prevailing will not occur again during the life of the majority of business men. Hence, the caption "The Chance of a Lifetime." Everyone in a position to do so should take advantage of prevailing investment bargains. Let us then see what issues are in the strongest relative position.

Author's Note: The last two paragraphs in this chapter have been left as originally written in 1920. This was done so as to bring out vividly the completion of the downward bond cycle. As this is written, in 1923, bonds have advanced to a level comparable with that of 1917, but, as can be deduced from this work, are still relatively low.

CHAPTER V

RAILROAD BONDS AS INVESTMENTS

Marketability a Prime Consideration

After having established the security of our investment and after having obtained as high a return as possible depending on conditions and commensurate with safety, our next consideration is marketability. This is more than a small item. All individuals have many ups and downs. Although investments are made for income and are thus considered permanent, conditions often arise that necessitate immediate transfer of an investment, or its liquidation. It is for this reason that investors should be careful to purchase only short term notes during periods of advancing commodity prices or declining bond prices, while, on the other hand, during a period of declining commodity prices, they should persistently purchase long term bonds.

The New York Stock Exchange forms the broadest market in probably the entire world for both speculative and investment securities. Transactions in Liberty Bonds amount to millions daily. In addition, the average daily turn-over of bonds, exclusive of Liberties, is probably around $7,000,000. The greater proportion of the bonds bought and sold on the Exchange are railroad issues. Railroad bonds have been the favorite form of investment in the United States for more than fifty years and their widespread ownership has brought about a wide market. From the standpoint of the marketability, there are few investment issues superior to railroad bonds.

Capitalization of Our Railroads

The difficulties of our railroads during the war period and government operation of them has centered study on their

capitalization and values. Their capitalization is estimated at approximately twenty billion dollars. About three-fifths of this capitalization is estimated to be bonds and two-fifths stock. For over ten years, the proportion of bonds to stock has grown steadily. This has been due to two causes: first, the gradual decline in railroad credit which has made it impossible for any but a few of our strongest roads to sell stock at one hundred cents on the dollar; second, to the natural desire on the part of our strong properties to finance at a rate of interest lower than the prevailing dividend payments on their stock issues.

In many quarters, the capitalization of our railroads has been subjected to severe criticism. It has been charged that organization expenses, questionable assets and other items have been included at full value in capitalization expenditures. However that may be, the offsetting feature in the situation has been the continued advance in prices of the past twenty years coupled with the natural growth of the territory served. We have heard much about the increase in the assets behind our industrials due to the increase in the value of their plants. Many seem to forget that the railroads likewise have been experiencing an almost constant increase in the value of their plant. As a result, there is little question, even viewed from the most antagonistic standpoint, that railway bonds are today fully covered by assets.

It will be recalled that Mr. Plumb, author of the Plumb Plan for operation of our railroads, stated that it was his opinion that the actual invested capital of our railroads was approximately $12,000,000,000. This is just about equal to the par value of bonds outstanding. This estimate was made from an anti-capitalistic standpoint, and is considered absurdly low by many financial authorities.

The History of Railroad Development

In our text on Railroad Securities by Mr. Mundy, the general analysis of the railroad situation was taken up in detail. Here we will briefly discuss the advance and deterioration of railroad

credit. In the period 1895–1900, a great number of railroad reorganizations occurred. This was caused by years of declining prices which culminated in a period of extreme business depression. The reorganizations at that time of Atchison, Northern Pacific, Union Pacific and other roads were so complete that within ten years an absolute transformation had taken place. These systems became wonderfully prosperous. Their securities sold at large premiums. Union Pacific Common, starting from below 10 in the late 1890's, sold at 219 in 1909.

It will be remembered that, while the country was in a period of considerable industrial expansion in the first six years of this century, commodity prices rose relatively little up to 1906. With a fairly constant operating cost, owing to relatively favorable prices for materials, fuel and labor, the gross and net earning power of our railroads increased tremendously.

Deterioration of Railroad Credit

Since 1909, the situation has been quite different. In the period from 1906–1912, indications developed that the operation of our railroads had not been always conducted in the interests of the public. First one road and then another showed signs of an inability to continue a satisfactory net earning power in the face of good gross business. Inter-locking directorates and other financial abuses were proving too heavy a load for railroads to carry. Immediately after this period came the financial breakdown of roads like New Haven, Boston & Maine, Missouri Pacific, St. Louis & San Francisco and Rock Island. In looking over these properties, it will be appreciated that the majority, if not all of them are admirably located as regards traffic possibilities. Their downfall may be traced almost directly to financial jugglery.

These developments naturally reacted against the credit of roads that were honestly conducted and operated and which have since been so conducted. Coincident with these developments, however, there came a permanent development of even greater moment. Disclosures of maladministration brought

forth a demand for closer supervision by the Interstate Commerce Commission. The Commissioners felt they must protect the public absolutely. This, under the conditions, naturally resulted in an antagonism to the railroads. At the same time, the prices of commodities showed a more decided upward turn, which after the opening of the European War was accentuated considerably, thus increasing operating costs rapidly.

As a result, in 1915, 1916 and 1917 under a period of rising prices and active business conditions, many of our railroads failed to show the same proportionate increase in net earning power as in previous periods of prosperity. A natural reaction was that they failed to expand or keep up with the traffic demands as they had heretofore, and the physical condition of both their equipment and roadbeds deteriorated. When, therefore, we entered the War in April, 1917, the railroad managers immediately combined in an effort to unify the use of their equipment in an attempt to move the tremendous amount of freight with the tools that were available.

In spite of herioc efforts, this endeavor failed, and in December, 1917, the President issued a proclamation establishing Federal operation of our railroads. The natural accompaniment of these developments from the investors' standpoint was a steady deterioration of railroad credit and a constant decline in the prices of both railroad investment and speculative securities.

Federal Operation

The law which gave the President control of the railways and instituted Federal operation provided that such operation was to continue during the war period and for twenty-one months thereafter unless terminated in advance by the President. Federal operation continued until March 1st, 1920. In many respects, both from an operating and financial standpoint, it was the most interesting period through which our railroads have ever passed and a brief study of it is absolutely necessary in any consideration of railroad bonds as investments.

Federal operation provided that the government should guarantee the railroads a net income which was equal to the average net income for the three operating years 1915, 1916 and 1917. This was quite a favorable offer as the average earnings of this three-year period were good. Federal operation brought direct unification. Cars were exchanged from one road to another without difficulty. Freight was routed over the shortest lines and terminals were used as common property. There is no gainsaying the fact that the railroads as a war factor were one of the most efficiently operated war machines. Under war conditions, however, the prices of materials, fuel and labor rose rapidly, as we are all aware. As a result, the government was forced to increase wages approximately 70%, and being able to increase rates only 25% or feeling it best that only this increase be made, a net operating deficit to the government estimated at approximately $900,000,000 resulted.

All during 1918, the attention of the Railroad Administration was directed to the operation of the roads as a war adjunct. Soon after the end of the war, the Administration endeavored to have control extended so that it could build up the physical condition of the properties or at least that was the claim. Operated as a war machine, the physical condition of the roads became somewhat impaired and the equipment materially so. The Administration, however, was unable to obtain an extension of operation, and as a result, it failed to make large purchases of necessary equipment because it naturally disliked to load down the roads with obligations for equipment purchases immediately prior to handing them back to private control.

As a result, the return to private operators on March 1st, 1920, found the railroads facing two difficult conditions — the immediate necessity of large equipment purchases and a laboring body disgruntled because of the failure of the Administration to raise wages or lower living costs in the last few months of control.

Recent Legislation

The railroads were not handed back, however, without an

effort being made for a general solution of the entire railroad problem. The roads were handed back under the Esch-Cummins bill, which provided that the Federal guarantee was to be extended for six months until September 1st, 1920. In the meantime, the Interstate Commerce Commission was to investigate the situation and determine what rates should be established that would allow the carriers as a whole to earn an average return on their average valuation of between 5½ and 6%. After careful deliberation, the Commission granted increases in rates averaging from 25 to 40%. An additional provision was that any road earning in excess of 6% of its valuation must divide all excess 50-50 with the government.

This was constructive legislation. It did not do, however, what many individuals and investors claimed. Statements have been made that the Esch-Cummins bill guarantees our railroads a return of 5½% on their value. There is no guarantee. The days of guarantee passed September 1st, 1920. The bill simply shows that a return of 5½% and 6% on the average value invested in the railroad is an essential return, and that rates will be allowed, if possible, that will in turn bring about such earning power. Actual return earned by our railroads in 1921 was less than 3% on the property valuation, in 1922 about 4.4%.

The Question of Valuations

It can readily be seen that the question of the value behind our railroads is to the front more today than ever before. For a number of years, the Interstate Commerce Commission has been making an appraisal of railroad properties. In allowing the rate increases, the Commission accepted a figure of $18,900,-000,000 but this is not permanent. Certain tentative returns have been given from time to time. As they came in, they showed that the replacement value of our railroads was approximately equal to their capitalization. How the reproduction costs less depreciation, which will be the ultimate basis of value, will show up for the purpose of rate making is a question for future years to decide. What interests the investor is that the par value of the railroad bonds are absolutely covered by

asset values, even under lower price levels than those existing today. If, therefore, developments have brought about a condition under which an attempt will be made to regulate rates to allow at least a $5\frac{1}{2}\%$ annual return, the position of the bondholder is immediately seen to be stronger than it has been for some time.

Owing to the ability of many of our railroad systems to finance about twenty years ago for a long term of years on a very low interest basis, the average interest rate of railroad bonds outstanding in this country is about $4\frac{1}{2}\%$. The average price level of railroad bonds is probably not over eighty percent of their face value. This combination of depressed price and low average interest return, coupled with the recent developments in railroad legislation, makes the position of the bonds of our strong railroad properties look particularly attractive.

What of the Future?

We do not mean to intimate that railroad difficulties have been solved. Much to the contrary! Railroad bonds are so protected by assets and are so low in price that we do not think an entire elimination of difficulties is at all necessary in order to appreciate the advantage of railroad bond investments. The developments under recent legislation are bound to show whether private operation or government operation will serve the public best. The main point is that the essential character of our railroads to all industry is appreciated. The government has an investment of over $1,000,000,000 in our railroad properties. The best minds in the country are studying the situation, and whatever the future development, whether continued private operation or public operation, the position of the railroad bondholder is a strong one.

Railroad Issues Legal for Savings Banks

No discussion of railroad bonds would be complete without the mention of the position that railroad bonds hold as legal investments for trustees and savings bank funds. Just prior

to 1900, the State of New York admitted railroad bonds to its list of legal securities. The requirements of the larger states on railroad bonds, in order for them to be legal investments, are that they be secured by mortgages which are obligations of railroads that have paid dividends of at least 4% for five consecutive years. While these provisions have, of course, immensely broadened the market for the bonds of our strong companies, they have not prevented them from joining to an equivalent degree in the general investment readjustment with all other types of issues. As a result, institutions or individuals searching for investments legal for trustees are, under recent railroad developments, strongly attracted to our best long term railroad issues giving, as they do, an unprecedented return.

CHAPTER VI

PUBLIC UTILITY BONDS

Business Stability

The first requisite in any investment is security. Security may be said to consist of two distinct divisions, asset value and earning power. The bonds of a property may be outstanding to the amount of only 50% of the actual assets behind the property but, if the property is not well located or is not productive of earning power, its value will not long remain at double the bonded indebtedness. On the other hand, as we have seen in our industrial life many times, a property may be so advantageously located and so well managed that it may earn many times its interest requirements with actual asset values little more than equal to its bonded indebtedness. Moreover, as can be seen from the above, earning power over a series of years determines asset values to a considerable extent. A plant, for example, is worth $100,000 because it is a going concern and because its earning power is good. While there would be no change in the actual assets if the location of the plant was poor and it could only operate at 25% of capacity, the value of its property would be considerably less than in the first instance.

Public utility bonds, perhaps more than any other type of investment, are protected by a stability of both asset values and earning power. This is particularly true in regard to gross earnings. The financial history of this country shows that irrespective of prosperity or depression the demand for the services rendered by our public utilities has shown a constant increase. This is quite natural when we stop to consider, that light, heat, transportation, and to a considerable extent telephones, are absolute necessities, irrespective of whether an individual or industry is barely making both ends meet or is making a substantial profit. With the tremendous advance in the costs of

raw materials and labor during the war period, a somewhat different situation arose as regards public utility net earning power. This will be discussed later in the chapter. Suffice it to say now that such a condition was bound to be temporary and that from an earnings standpoint the chief characteristic of public utility operations is their stability.

Regulation by Commission

The primary reason for stability in earning power is constant growth in population. Of secondary importance, but still of considerable importance, are the conditions under which our public utilities operate. Practically all our states, at the present time, have public utility commissions which have judiciary control over nearly all types of public utilities. These commissions protect the utilities themselves through franchises granted which, to a considerable extent, exclude competition. This is just, because, if a public utility is properly regulated, competition simply means a duplication of plant and unnecessary expenditure for which the people must pay in the end. Regulation by commission protects the investor to a large extent. In some states jurisdiction extends to the approval of security issues, bookkeeping methods and a general supervisory control over both the rates charged and service furnished. This has prevented the development of any considerable amount of corporate abuses in the public utility field. Those that we find are largely developments of the pre-commission period.

Commission control is therefore decidedly an added feature of attractiveness to the investor in public utility issues. Let us then, turn to a brief discussion of individual fields.

Gas Companies

The bonds of our strongest gas properties may be purchased to give a high return. Ten years ago gas properties represented perhaps the strongest public utility investment field. The strong features of gas properties are their low maintenance costs and the fact that they are subject to practically no competition

from other gas companies in the same territory. The installation of a new gas plant is an expensive proposition. Within the past ten years, however, gas companies have experienced severe competition from electric lighting properties. This has resulted in driving them largely from the lighting field so that at the present time their chief source of revenue is from cooking and heating. It is much more expensive for a gas property to expand than for an electric lighting property and it seems probable that competition between these two industries will disappear in favor of electric lighting. Both for cooking and heating, however, gas still has the edge on electricity, on account of lower costs.

On account of these developments there has been a notable tendency in recent years for gas and electric lighting properties to combine and operate under one head. In view of this condition and the developments noted above, it seems to us that investors would do well to confine their investments in companies furnishing gas to the properties combining both gas and electricity. An illustration is the Consolidated Gas Company of New York which not only supplies gas to Manhattan Island, but through the New York Edison Company also supplies it electricity.

Electric Lighting Companies

Electric lighting companies have grown rapidly in the past ten years and their securities today form a most attractive basis for investment. Electric lighting properties have been much more able to withstand the advance in operating costs of the war period than have gas companies. In recent years we have seen tremendous improvements in the efficiency of electric lighting and we can look forward to still further improvements which should in turn further increase net earning power. Electric lighting companies in large cities have their wires under ground and the cost of maintenance is relatively small. On the other hand, electric lighting properties serving rural districts have overhead wires which necessitate large charges for depreciation and maintenance but which is offset by a considerable increase in the rates received.

An electric lighting property should operate under normal conditions for about 50% to 60% of its gross earnings which is less than the operating costs of gas properties. Like gas companies, they are immune to a great degree from competition within the industry and as regards outside competition they have little to fear. A comparison of some of our leading electric lighting properties such as the Edison Electric Illuminating Company of Boston, the Commonwealth Edison of Chicago, the Brooklyn Edison or the Cleveland Electric Illuminating Company, with gas properties serving the same or similar localities, will serve to show the more favorable position of the electric lighting companies.

Electric Power Properties

One of the most marked developments of our recent period of industrial expansion has been the growth of electric power properties, particularly hydro-electrics. This has been natural for two reasons. As the cost of fuel increased it was found cheaper in many instances to buy central station energy. In the second place a hydro-electric is particularly well situated in a period of advancing prices for labor. As a result, under prevailing conditions, and with the probability of continued high fuel and labor costs for some time, hydro-electric investments have become one of the most interesting studies. Probably there are few, if any, safer purchases than the first mortgage bonds of fully developed hydro-electric properties. These may be bought to yield a high return.

A hydro-electric development is very expensive to build. The dam is costly and the estimate of construction costs has proven, in many cases, to be over-optimistic. For example, the Mississippi River Power Company, one of our largest hydro-electric developments, issued $16,000,000 first mortgage bonds for construction purposes when the proposition was begun. The company was later forced to raise $26,000,000 and full development is not yet accomplished. Once a hydro-electric has established an ability to earn a good rate of interest on the

cost of construction, however, there are few more stable investments. A study of such properties as the Alabama Power Company, the Utah Power & Light Co., the Connecticut River Power Company and the Shawinigan Water & Power Company of Canada indicate this clearly.

Of course hydro-electric developments are bound to be affected from the standpoint of their gross earnings by fluctuations in industrial prosperity, but in this regard it must be remembered that the purchase of power is an operating need and as such is fairly stable. The average operating cost of a hydro-electric development is low. The Mississippi River Power, which has no steam plant whatsoever, operates for less than 25% of gross. The Alabama Power, which is approximately 60% hydro-electric and 40% steam operates for about 50% of gross. With the future as uncertain as at the present time companies which are able to operate their plants for such a low percentage of gross earnings certainly should attract investors.

Telephone Companies

A study of telephone companies in this country really resolves itself into a discussion of the American Telephone & Telegraph Company. The development of this property over the past 20 years has shown a steady absorption of independent properties and the position of the majority of the remaining independent properties is such that any discussion of telephone bonds should be made in the light of the Bell Telephone Company securities. The chief advantage of telephone securities is, it seems to us, stability of earnings and the fact that the actual invested capital in proportion to the user is smaller than in any other type of public utility.

The disadvantages are the difficulty of determining actual assets behind the securities, obsolescence, due to rapid improvement in telephone apparatus, heavy maintenance requirements, particularly in overhead construction and the necessity for continued expansion irregardless of whether such expansion is profitable or unprofitable. In explanation of the latter let us

say that, during the war period, owing to a tremendous increase in the price of materials and labor, the value to the company of the installation of new telephones, particularly in suburban or rural districts, was questionable. Nevertheless, telephone companies, being public servants, were compelled to continue installation. This necessity brings with it constant expansion in capitalization, for a number of years accomplished by stock issues, but in war years impossible. As a result we have found the funded indebtedness of our various Bell subsidiaries and the American Telephone & Telegraph Company proper, increasing rapidly. This, combined with increased costs for maintenance, makes us feel that, unless the reversion to financing by stock which came in 1921 can be continued, the bonds of our telephone companies do not compare, as investments, with either electric lighting or electric power securities.

Street Railways

Any consideration of street railways must be divided into three sections; surface lines of our larger cities, rapid transit lines such as subways and elevated properties, and interurbans. None of these properties, with few exceptions, have available securities that appeal to the most conservative investors. Owing to custom and to some extent past corporate abuses, it has been difficult for our street railways to obtain the same increases in compensation that have been obtained by other forms of utilities. As a result more than 20% of the street railway mileage of this country is either in the hands of receivers or has been torn up.

The most pressing necessity for street railways is a decided change in the price level. Such a change, however, is bound to be slow, particularly as regards labor. Labor represents probably more than 50% of the operating costs of our street railways. Average operating expenses of these properties rose from around 70% to 75% of gross in the pre-war period to levels ranging from 85% to 100% during the war and in some cases still higher. A study of them therefore resolves itself into a problem of a survival of the fittest.

A few properties, such as the Detroit United Railways, Cleveland Railways, and the Philadelphia Rapid Transit, on account of individual conditions, have been able to weather the difficult post-war period. In the case of the Detroit United it has been due to the tremendous expansion of the city, in Cleveland to an agreement with the municipal authorities whereby the company is allowed to charge sufficient to pay 6% on its stock. Philadelphia Rapid Transit's success has been due to extremely good management, but this company has been forced to appeal for increased fares.

Rapid Transit Lines

The street railway is not only beset by a tremendous increase in costs but has also been hampered by competition from motor vehicles. In both fields of difficulties we feel the rapid transit lines of our larger cities are favorably situated. The costs of operation have not risen as they have on surface lines and automobile competition is nil. For example, few men would consider going from the Battery on Manhattan Island to the Grand Central Station in either a surface car or an automobile. An express train on the subway would be much more satisfactory.

The New York rapid transit lines have been held back by an operating agreement made with the municipality in the pre-war period. Nevertheless, bearing in mind that the development of our large cities depends to a great extent on the development of their rapid transit facilities we feel that while no electric railway bonds, practically speaking, can be considered investments at the present time, the bonds of rapid transit lines look attractive for investors willing to assume a large risk for a larger probable profit.

Surface Lines

Surface lines operating in many of our large cities also have possibilities. The difficulties here, besides increased costs, have been due also to a slowing down in the rate of progress due to competition for the highway with automobiles and other

vehicles. In New York City, for example, the rate of progress of a surface car is estimated to be not more than six miles per hour. In some of our smaller industrial centers, however, the rate of progress is much more rapid. A city like Chicago, even, gives a much better showing and with the increased industrial development we are bound to experience, we feel that there is a place for properties of this character. It is difficult to forecast developments. During the war municipal ownership looked probable. At the present time a plan along the service-at-cost lines looks more probable. The properties perform a needed function. They have a fixed investment and it is only natural to expect that in years to come they will be allowed to earn a fair return on the capital invested.

Interurbans

This class of street railway has a problematical future, particularly in the East. High speed interurbans in many places parallel steam lines and with the coming electrification of steam lines the future is questionable. Where they act as feeders they are paralleled, in the East, by good roads, and it is in this field of electrical development that the severest competition with the automobile has developed. The cost of maintenance of such properties is relatively heavy. The users are not industrial workers, we believe, in the majority of cases, and this end of the street railway industry certainly seems, in view of recent developments, to have been over-boomed in the past fifteen years. The situation in the West is not as mixed because in many cases the interurbans act as carriers of freight as well as passengers and are not paralleled by roads of good construction. They operate over private rights of way and attain a higher speed than eastern interurbans. Nevertheless the entire interurban industry is in a difficult position and we feel that investors would do well to confine purchases to other fields.

The Future

All types of public utilities, irrespective of whether rendered assistance by utility commissions or not, have been through a

difficult period in the last five years. It is very hard to point out any utility companies that have been allowed to increase the prices for their product in the same ratio as average manufacturing prices have been increased. Those that have been able to withstand such conditions and continue to pay a fair rate of return on the stocks which follow their funded indebtedness, certainly have a bright future. While prevailing costs will drop slowly, a long pull study of the future suggests certainly that the most difficult period of utility operation is behind us. If, therefore, we concentrate on utility securities that seem to have possibilities of tremendous development from the standpoint of gross earnings, such as electric lighting companies, electrical power companies, or rapid transit properties, we will have the bases for some extraordinarily attractive investments when even lower wage levels and lower prices for materials and fuel allow a wider margin of net earning power in relation to gross revenue.

CHAPTER VII

INDUSTRIAL BONDS

History

Industrial companies, more than any other class of enterprise in this country, have been able to finance for a number of years by means of stock issues and in many cases by common stock issues. The factors that have brought about difficult operating conditions among utilities and rails have been very favorable to industrials. During the period of advancing prices, selling prices that are flexible tended to increase faster than operating costs. There is no restraint on increasing industrial selling prices except the law of supply and demand. As a result, while the net earning power of rails and utilities has been restricted, the net earning power of industrials was expanded to a tremendous degree and the common stocks of many companies, formerly selling below $50 a share, have sold considerably above their par value. This has allowed properties in need of additional working capital, or desiring to expand, to sell additional common stock to stockholders at 100 cents on the dollar. This condition, however, is the consummation of years of difficult operations and slow development.

Industrials as a class are noted for conditions quite the opposite of public utilities. Stability of earning power is not their strong fort. Their earning power expands greatly in periods of prosperity but contracts just as quickly in periods of depression. The industry as a whole has, in past years been largely speculative. Until the relatively recent past, it has been difficult to induce investors to enter industrial enterprises. The field has been the mecca of speculators. Furthermore, as noted above, after the field became fully established, the advent of tremendous prosperity removed necessity of widespread financing through bond issues. As a result, in proportion to the

business and output, we have fewer attractive industrial bonds today than any other class.

Prevailing Types

The industrial issues of long standing that are available, however, and we are now speaking of long term industrial issues, are very high grade. The mortgages under which industrial bonds are issued are by no means as complex as railroad mortgages or even those of public utilities. Industrial bonds are mostly of two classes, either first mortgages or debentures. In many cases where the bonds are debentures they are not preceded by any mortgage on the property. This is the case with the General Electric issues, for example. It makes them in reality a first lien upon the assets of the organization. First mortgage bonds where available, are in a very strong position and irrespective of periods of depression or prosperity our industrial development has now reached a stage where the earning power of our stronger properties should constantly be largely in excess of their mortgage interest requirements. For example, such bonds as the American Smelting First Mortgage 5's, 1947, the Armour & Company First $4\frac{1}{2}$'s, 1939, are types in question.

Convertible Issues

An attractive medium of financing of some industrial companies, that have not become sufficiently seasoned through continued prosperity, is by convertible issues. Convertible issues of this type are made convertible into the stock at some future date and at a price higher than prevailing levels. The idea of the company is that, as development proceeds, the stock will become more valuable. In the meantime it offers, in return for money to finance the enterprise, not only a fixed rate of interest but also the possibility of sharing in the future development above spoken of. When such bonds are protected by a good margin of assets they form a very attractive investment and during the recent industrial prosperity have proven quite profitable. A case in point is the Lackawanna Steel Convertible 5's. Other convertible issues that illustrate the situation

referred to above are the Wilson Convertible $7\frac{1}{2}$'s of 1931. The position of Wilson & Company is not quite as stable as that of Armour or Swift. By issuing convertible bonds it was able to finance with a debenture issue. The Chile Copper Company, another industrial that is largely in the development stage, has been able to do its financing through the means of convertible bonds that may be exchangeable at some future date into the stock at $35 a share.

Recent Financing

With the inflation that followed the war came another change in industrial financing. The older stable properties were well supplied with capital and had husbanded their resources derived from war prosperity. The tremendous industrial expansion, however, brought into existance innumerable smaller industrial properties. The Central West has been particularly productive of this type of industrial. Some of them were combinations formed, in the period of inflation following the war, from close corporations. Other smaller properties that entered the market for funds were those that distributed the profits of the war period quite lavishly. With the restriction of credit the carrying of large inventories became difficult and the appeal for money resulted.

In most all instances this financing has been accomplished in the form of funded indebtedness by the means of shorter term bonds. In some cases these bonds were convertible into long term bonds at a later date; in other cases into preferred or common stocks. In considering such issues two things must be kept constantly in mind. **In case of new consolidations it must be remembered that any appraisal of properties made under prices prevailing during the period of inflation would mean high values which would probably not remain over a period of years. Again the financing of inventories during a period of declining prices is bound to be difficult.** It is for this reason that the old seasoned properties have been so conservative in dividend payments. A new industrial con-

solidation, formed during a period of high prices, or an industrial that has been lavish in dividends during such a period, is bound to experience financing difficulties during any deflationary period. For that reason it does not seem to us that industrial issues of this type can compare as investments with the issues of corporations that have been through difficulties over the past ten years.

Industrial Preferred Stocks

Owing to the ability to count money received from the sale of preferred issues as invested capital, and owing to the fact that the income received from preferred stocks is not subject to the normal tax, this form of financing has become very attractive to industrials. Preferred stocks to attain the characteristics of bonds in any degree must be surrounded by stringent restrictions. Even then they cannot be given the right of foreclosure. Furthermore the permanent value of many restrictions placed on preferred stocks is somewhat questionable.

Preferred stock flotations by industrials seem to come and go in waves. We experienced a preferred stock flotation boom in 1912, another one in 1919 to 1920. Preferred stockholders of the offerings of 1912 experienced decided losses in investments in the years that followed. Typical weaker preferred stock issues of that period were the Advance-Rumely Preferred, the International Agricultural Chemical Preferred, and even Goodrich Preferred. Offerings of this type have been duplicated many times in the recent past.

The value of seasoning in industrial preferred stocks is more marked than perhaps in any other type of investment. Consider the course of American Sugar Refining Preferred. This is one of the best industrial preferred stocks that has ever been offered to investors. It was put out in 1891. It has paid 7% dividends continuously since. In spite of that fact, in the panic of 1893 it sold at $66\frac{1}{2}$; in the depression of 1897 at $79\frac{3}{4}$. By 1903, however, the stock had become securely lodged in the hands of investors. As a result, in that depression it failed to go below 111. In 1907 its low point was 106, in 1914, $107\frac{7}{8}$, and

in 1917, 106. Industrial preferred stocks of this type are always on the bargain counter in periods of inflation, due to very high prices for goods and money, or in other words low purchasing power of income. Investors, therefore, desiring industrial preferred stock investments should confine purchases to such issues rather than to the newer unseasoned offerings.

AUTHOR'S NOTE: This last section "Industrial Preferred Stocks" written in 1920 has not been changed in revision. I believe it will prove of greater value to investors left as it is. The depression of 1921 certainly saw the developments promised among the newer industrial preferred stock flotations of 1919–20. It is a situation that will recur frequently over the next twenty years.

CHAPTER VIII

GOVERNMENT BONDS

Characteristics

The characteristics of government bonds were discussed briefly in the chapter "Classification of Bonds." There we showed that the real asset behind government bonds is the good-will of the people rather than the combined property values.

There is, of course, considerable connection between the asset values of a nation and the good-will of its people. An impoverished nation with a heavy debt would be forced to tax its people so tremendously that it would quickly lose their good-will and be forced to ultimate repudiation.

In considering United States Government bonds, we have to give only passing consideration to actual asset values. We are all aware they are tremendous. The real strength behind United States Government bonds, the factor that makes them sell on a higher plane than any other government issues is the united support of the government by the people and their willingness to fight in its behalf. In other words, the extraordinary values behind our bonds are really a reflection of the tremendous opportunities the country offers to every individual.

Wealth, Debt and Income

In considering asset values, however, here again, the United States stands pre-eminent. Prior to our entrance into the war, our national debt was roughly $1,000,000,000. During the war, $16,937,436,850 bonds were issued, also approximately $4,500,000,000 notes. Altogether, our total debt at the present time, 1922, is roughly $24,000,000,000. Our wealth is estimated at from $300,000,000,000 to $325,000,000,000; our annual income

at from \$50,000,000,000 to \$55,000,000,000. Hence, in spite of the tremendous increase in government bonds outstanding, our annual income is still considerably more than twice our total debt. At an average rate of $4\frac{1}{2}\%$, the annual interest payments on present government debt would be about \$1,000,-000,000.

In other words, one-fiftieth, roughly, of our total yearly income must go toward paying interest on our debt, or two cents out of every dollar. Considering what we have been through and comparing our position with that of foreign nations, which we will outline, the tremendously strong position of our nation is apparent.

Liberty and Victory Loan Issues

While the United States Government has some old long-term, low-interest bearing bonds outstanding, when we speak of government obligations at the present time, from an investor's standpoint, we refer to the Liberty and Victory loan bonds.

We are all familiar with the purposes for which these bonds were put out. They are all obtainable in small denominations. They form, without a doubt, the safest investment in the entire world. The table on the following page is more descriptive of them than any narrative could be. Considering the outlook for long term investments, the Liberty $4\frac{1}{4}$'s maturing in 1938 and 1942 look very attractive. Quotations on these bonds are given daily in our financial publications, activity in them on the New York Stock Exchange is tremendous. They have the broadest market of any security in the world.

Their position in regard to taxation is graphically explained in the table. It is possible for an individual, under correct conditions, to hold \$160,000 Liberty $4\frac{1}{4}$'s exempt from taxation. Under the rulings of the Treasury Department, it is possible for anyone to go into the market and purchase up to \$35,000, irrespective of subscription to any of the loans, and hold them tax-exempt for a considerable period.

UNITED STATES LIBERTY

The principal characteristics of the ten different issues

	3½s	4s		
	1st Liberty Loan 3½s *15–30 Year Bonds 1947*	**1st Liberty Loan —Converted 4s** *15–30 Year Bonds 1947*	**2d Liberty Loan 4s** *10–25 Year Bonds 1942*	**1st Liberty Loan—Converted 4¼s** **Issue of May 9, 1918. 15–30 Year Bonds 1947*
Callable For Payment	Redeemable at government's option on or after June 15, 1932.	Redeemable at government's option on or after June 15, 1932.	Redeemable at government's option on or after Nov. 15, 1927.	Redeemable at government's option on or after June 15, 1932.
Interest Payments	June 15th and Dec. 15th.	June 15th and Dec. 15th.	May 15th and Nov. 15th.	June 15th and Dec. 15th.
Conversion Privilege	Convertible into any higher rate bond issued during the war (except) short term loans) within six months from date of the issue of such higher rate bond. The date of the termination of the war shall be date fixed by proclamation of the President	Convertible into the First Converted 4¼s if application is made before Nov. 9, 1918. This privilege to convert has been extended and renewed.	Convertible into Second Converted 4¼s if application is made before Nov. 9, 1918. This privilege to convert has been extended and renewed.	Not convertible into any future issue.
Taxation Feature	Exempt from all taxes (except estate and inheritance taxes).	See B, C, E and F.	See B, C, E and F.	See A, B, C, E and F.

A.—Bonds owned continuously for at least six months prior to one's death are acceptable at par and accrued interest in payment of any estate and inheritance taxes imposed by the United States under any present or future law.

B.—Exempt from state and local taxes and from normal income tax. Subject to state, inheritance, super-tax, excess and war-profits tax on all incomes and earnings above the normal exemption; incomes from holdings of $5,000 bonds are tax exempt except for estate and inheritance taxes.

C.—In addition income from not more than $45,000 bonds of this issue or a small amount not exceeding 1½ times the amount of the Fourth Liberty Bonds held by the owner is exempt until two years after the war from surtaxes, excess and war-profits taxes, provided said Fourth Loan Bonds were originally subscribed for and have been continuously owned by the tax payer up to the date of his tax return.

D.—In addition to exemption under B, interest on not to exceed $30,000 bonds of this issue is exempt until two years after the war from surtaxes, excess and war-profits taxes when owned by one individual, partnership, corporation or association.

E.—In addition to the tax exemption under B, income received on and after January 1, 1919, on not to exceed $30,000 bonds in the aggregate is exempt until the expiration of five years after the war from surtaxes, excess and war-profits taxes.

AND VICTORY LOAN BONDS

of Liberty and Victory Loans are set forth below.

4¼s				3¾s & 4¾s
1st Liberty Loan—2d Converted 4¼s **Issue of Oct. 24, 1918* *15–30 Year Bonds* *1947*	**2d Liberty Loan —Converted 4¼s** *10–25 Year Bonds* *1942*	**3d Liberty Loan 4¼s** *10 Year Bonds* *1928*	**4th Liberty Loan 4¼s** *15–20 Year Bonds* *1938*	**Victory Liberty Loan** *3–4 Year Notes* *1923*
Redeemable at government's option on or after June 15, 1932.	Redeemable at government's option on or after Nov. 15, 1927.	Not redeemable until maturity.	Redeemable at government's option on or after Oct. 15, 1933.	Redeemable at government's option on or after June 15, 1922, upon not less than four months' notice.
June 15th and Dec. 15th.	May 15th and Nov. 15th.	September 15th and March 15th.	April 15th and October 15th.	December 15th and June 15th.
Not convertible into any future issue.	Not convertible into any future issue.	Not convertible into any future issue.	Not convertible into any future issue.	The 3¾s and 4¾s are convertible and reconvertible each into the other after July 15, 1919, but before maturity or call for redemption.
See A, B, D, E and F.	See A, B, C, E and F.	See A, B, C, E and F.	See A, B, D, E and F.	See G and H. See Note A as regards 4¾s.

F.—In addition to the tax exemption under E, income received on and after January 1, 1919, on not to exceed $20,000 bonds in the aggregate is exempt from surtaxes, excess and war-profits taxes, extending through the life of the Victory Notes, provided such bonds do not exceed three times the principal amount of Notes of the Victory Liberty Loan originally subscribed for by such owner and still held by him at the date of his tax return.

G.—The 3¾s are exempt both as to principal and interest from all taxation (except estate and inheritance taxes) now or hereafter imposed by the United States, any State or any of the possessions of the United States, or by any local taxing authority.

H.—The 4¾s are exempt both as to principal and interest from all taxation now or hereafter imposed by the United States, any State, or any of the possessions of the United States, or by any local taxing authority, except estate or inheritance taxes, and graduated additional income taxes, commonly known as surtaxes, and excess profits and war-profits taxes, now or hereafter imposed by the United States, upon the income or profits of individuals, partnerships, associations or corporations.

*The two issues of First Converted 4¼s differ only to the extent that the issue of October 24th is tax exempt as to the interest on not to exceed $30,000 bonds regardless of one's subscription to the Fourth Loan, whereas the issue of May 9th is tax exempt as to the interest on not to exceed $45,000 bonds in connection with one's subscription to the Fourth Loan.

The Market Action of Liberty Bonds

The majority of us holding Liberty Bonds subscribed for them. The more fortunate have been able to purchase on declines, but many hold the ones originally purchased at par. Naturally the decline of 1919–1920 was disturbing. A brief discussion of the causes should be interesting.

To begin with, it must be remembered that, even at the beginning of the war, the government did not attempt to borrow at the going rate of interest. The first issue, the non-taxable $3\frac{1}{2}$'s undoubtedly approximately reflected the credit of the government on a non-taxable basis. A 4% bond at par, taxable to a great extent, as the First 4% issue was, was in no wise a true reflection of credit conditions. Patriotism played a large part in the sale of this loan and continued to play a large part in future loans. The progressive increase to $4\frac{1}{4}$% and then $4\frac{3}{4}$% for a short term note did not reflect the increasing interest rates in other securities.

At the end of the war, many who had purchased government bonds wrongly felt that their obligation had ceased, and liquidated. This was followed by a period of inflation, in which a great many people thought a good deal more of spending than saving, and changed their Liberty bonds into hats, suits or phonographs.

In addition to these conditions, the Federal Reserve Banks had, during the war, given all the assistance possible to the government in aiding the distribution of its bonds. It had purposely kept its rediscount rates at a level equivalent to, or below, the rates on government issues. Many will remember the slogan "Borrow and Buy." Subsequent events questioned the wisdom of that advice.

At any rate, the end of the war found a tremendous amount of government bonds lodged in the Federal Reserve Banks, which bonds had been used for rediscount purposes — that is people had taken the bonds to the banks and had borrowed on them, the banks in turn re-borrowing with the Federal Reserve System.

When the dangerousness of the inflation that took place in 1919 was appreciated, the Federal Reserve Board successively raised its rediscount rate. Cheap credit, meaning easy borrowing, lends itself to an enlarged purchasing, competitive bidding for goods, and thus inflation. A progressive increase in interest rates, or making credit difficult to obtain, has the opposite effect. It makes expansion difficult and brings about deflation.

This was what was necessary and what the Reserve Board was working for, but in doing it, it naturally brought about widespread liquidation of Liberty Bonds as the cost of borrowing on them became almost prohibitive. The difficulties of people who had borrowed, however, brought a tremendous opportunity for people with ready cash.

The Future

As noted above, the change from inflation in this country to deflation took place in the winter of 1919–20. Over a series of years, we can undoubtedly look forward to lower commodity prices, which will, in turn, bring lower interest rates. With the high credit of the United States Government, the holders of Liberty Bonds were the first to feel the favorable effects from such developments. It is not too much to expect that within a comparatively short time, the price of Liberty 4¼'s will go above par. With our present wealth, income and debt, a credit basis of 4% for the United States Government under normal investment conditions is entirely probable.

The opportunity offered and probable future of United States Government bonds can be appreciated by considering the trend of British Consols in the years following the Napoleonic Wars. The position of Great Britain at that time was nowhere near as strong as ours today. British consols were not helped by an approaching maturity. Nevertheless, they advanced approximately 30% in value in a comparatively few years. We feel, therefore, that the expectation of similar developments in United States bonds is not at all over-optimistic.

Position of Foreign Governments

With the tremendous financing of the Great War, the question of foreign investments has become of prime importance to the United States investor. The broadening of our investment field is bound to be of distinct benefit to the nation. As holders of European securities, we would yearly receive large interest payments, thus automatically swinging the exchange situation in our favor.

Nevertheless, such investments must be considered and approached purely from the business standpoint, and are of no value if not sound. Any investment pre-supposes a degree of safety sufficient to give uninterrupted income over a series of years. A consideration of an investment in European Government bonds must be based on the same grounds. We wish, therefore, to discuss the position of the foreign nations particularly as compared with our own position and to a lesser degree as compared with each other.

As the values behind government obligations consists of the united support of the people, as we have shown, and as this good will and support is closely bound up with the wealth, debt and income of the nation, let us consider briefly these conditions.

Wealth and Income — a Comparison

The table shown on the opposite page serves to give this information in a graphic form. We have reduced the debt in all cases to a per capita basis. This gives a real comparison. The actual debt of the nations is, of course, changing constantly, but the figures given, based on conditions late in 1919, are valuable for comparative purposes.

It goes without saying that the situation of the United States is sounder than that of any other nation, from every standpoint. Perhaps the outstanding feature of the table is the situation of France. Its debt per capita exceeds that of the two Central Empires. While its debt is not as large a percentage of its national wealth as is that of Great Britain, Italy or Austria,

the per cent of debt charges to national income, which is really more important, is the largest of any nation.

PUBLIC DEBTS OF VARIOUS NATIONS

	Debt per capita pre-war	Debt per capita recently	Debt charges per capita pre-war	Debt charges per capita recently
United States	$11.33	$249.	$0.22	$8.40
Great Britain.........	75.03	820.	2.60	31.00
France	166.	770.	6.35	49.00
Italy	82.55	410.	2.80	15.75
Belgium	94.25	250.	3.25	11.15
Germany	17.20	600.	0.62	33.
Austria	85.	555.	3.25	20.50

	Debt as % of nat. wealth pre-war	Debt as % of nat. wealth recently	Debt charges as % of nat. income pre-war	Debt charges as % of nat. income recently
United States	0.60	13.	0.07	2.55
Great Britain.........	5.00	54.15	1.10	13..
France	11.30	53.	4.20	32.50
Italy	13.30	66.	2.60	15.
Belgium	4.30	12.60	1.92	6.55
Germany	1.45	50.	0.40	21.
Austria	11.20	73.	4.20	26.

NOTE: In the past three years, conditions in all these nations have grown worse, with the exception of Great Britain.

Belgium has not suffered severely compared with the other Allies. Her recent debt per capita, of $250 is practically the same as the per capita of the United States it will be noticed. Of course, the cost of carrying her debt is heavier than that of the United States, which is shown by comparing "Debt charges per capita," but this figure is still very favorable.

When we come to national wealth and national income, Belgium suffers, failing to have as many natural resources as other nations. The result is that the per cent of debt charges to the national income of the country rises above 6½% as compared with 2½% for the United States, but Belgium's necessity for using 6.55 cents out of every dollar to pay the interest on her debt is still low as compared with other European nations.

Methods of Obtaining Income

Having established the position of the different countries in 1919, as regards percentage of debt charges to national income, it seems to us that the next interesting consideration should be their relative financial sagacity. We know of no better way to judge this question than by the methods used by the different nations in meeting their war expenditures. Increasing taxation is not easy for any nation, and a lazy financial method would have been to raise as large a portion of the money needed as possible by patriotic loans. The table below will show what the various nations accomplished during the war period.

PERCENTAGE OF TOTAL WAR EXPENDITURES OBTAINED BY TAXATION

United States	26%
Great Britain	25
France	15½
Italy	15
Germany	11

(Figures for Belgium are not available.)

Germany was notorious for her extreme dependence upon loans for war expenditures, which was based on the expectation of an early victory. It proved to be a course which, entered upon, could not be discarded.

The failure of France and Italy on the other hand, to do better, can be considered in some degree an indictment of both nations. If it was felt by the Ministers of Finance that the people could not or would not stand any heavier taxes, that of itself is not a bull argument on the securities of the nation. At any rate, the failure of the Ministers to do better is one of the reasons why France and Italy are in the weakest position of all the Allies.

Expansion of Note Issues

In all nations, the outstanding currency has been increased tremendously as a result of war conditions. Among European

nations, this inflation in many quarters has reached alarming proportions. The position of various countries late in 1919 as compared with pre-war conditions is given in the table below. The figures show the note circulation per capita just prior to the war and late in 1919, also the ratio of reserves to liabilities in the various central banking systems.

	Pre-war note circulation per capita	1919 note circulation per capita	Pre-war ratio of reserves	Recent ratio of reserves
United States	\$6.70	\$32	98.5%	45%
Great Britain	4.84	51	40	20
France	32.49	172.40	60	15
Italy	14.11	74	62	9
Belgium	24.29	115.17		
Germany	7.93	150	60	2.50
Austria Hungary	6.25	165	72	0.50

NOTE: In every one of these nations, except Great Britain, note circulation has continued to grow.—January, 1923.

Here again, we are forced to call attention to the position of both Italy and France. The expansion in the note circulation of Italy has been rapid, but the note circulation per capita of France at the present time is tremendous.

In depreciated currency, the Central Empires are practically hopeless. When we consider that the ratio of reserves in the central banking institutions of Germany have declined from 60% to a little over 2%, and in Austria Hungary from 72% to about one-half of one per cent, the situation is plain. This table readily makes clear the reason for the German mark selling where it does and for the Austrian krone being practically worthless. We see little hope for improvement and nothing in the situation on which to base bullish speculation. Irrespective of business conditions, the constant outpouring of new notes in these countries prevents any monetary improvement.

Here again the position of Belgium and Great Britain stands out as much more favorable.

Domestic Securities Preferable

In addition to the high rates paid by the foreign governments for money, American investors are often approached with the argument that, owing to the great depreciation in foreign exchanges, considerable profit as well as a high return will accrue when the exchange returns to normal. The figures given above as regards note circulation in France and Italy as well as in the Central Powers show that the return of the currency of those countries to normal will be very difficult to bring about. It will be years before it eventuates and in some cases such a development at all is extremely questionable.

On the other hand, American long-term bonds are now selling nearly as low as at any time in fifty years. A purchase of them will not only give a sustained return over a long period, but also considerable appreciation in price. For this reason, we feel that, outside of the high-grade English, Neutral European nation's, and Canadian bonds, investors should confine purchases to United States issues.

CHAPTER IX

MISCELLANEOUS ISSUES

Municipal Bonds

The term "Municipal" is used to apply to bond issues put by a city, state, county or township. Such bonds are obligations of definite municipalities and the principal and interest is payable from taxes. The purpose of their issue is to finance improvements which are to be of general public benefit. In view of this, the position of municipal bonds is a strong one. The benefits derived from their sale is usually plainly visible and each improvement makes the general community more progressive and of greater value. They are dependent for payment, not upon any individual conditions or industry, but upon a community that has benefited from their issuance. In other words, while in the last analysis, like government issues, they are dependent upon the good-will and integrity of the people, they, of themselves, further such good-will and contentment.

Methods of Payment

We have said that municipal bonds depend upon taxing power, or ultimately, the good-will of the people, for their payment. There are, however, certain distinctions in municipal bonds, which should be pointed out. The majority are payable by the collection of taxes placed against all the assessed property of a community. Some are made payable from special taxes or from revenue derived from the improvement itself. In such a case, however, the municipality as a whole stands behind the issue and payment is thus assured even if the special work proves disappointing. Bonds of this type are those issued by municipalities for waterworks, or perhaps playground or agricultural works. Another type are payable from taxes simply

levied against the property benefited, in direct proportion to the benefits received. They are called *Special Assessment* Bonds. School, sidewalk or even road improvement bonds are often issued in this form. These bonds require a more thorough knowledge of local conditions, when considering purchase, than do the direct municipal issues.

Tax Position

Municipal bonds are exempt from the Federal income taxes. In addition they are exempt from State taxation in the state in which they are issued. For example a Massachusetts investor can hold Massachusetts municipals exempt from both Federal and State taxation. Recently, considerable agitation has arisen against this tax exemption. In view of the fact that the general community benefits from the improvements against which bonds are issued, it is probable that municipalities will continue to

Year	Municipals	Rails	Public Utilities	Indst. Bonds	Indst. Pfds.
1920	5.07%	6.88%	7.51%	7.56%	7.82%
1919	4.62	5.96	6.30	6.57	7.25
1918	4.54	5.79	5.66	6.46	7.19
1917	4.22	5.10	4.91	5.97	6.98
1916	3.97	4.75	4.46	5.26	4.48
1915	4.35	4.89	4.81	5.57	6.83
1914	4.28	4.92	5.01	5.96	6.88
1913	4.30	4.41	4.90	5.35	6.42
1912	4.15	4.26	4.80	5.18	6.16
1911	4.06	4.23	4.77	5.17	6.25
1910	4.00	4.21	4.79	5.25	6.23
1909	3.90	4.08	4.71	5.16	6.13
1908	3.82	4.35	5.11	5.90	7.09
1907	3.90	4.30	4.91	5.76	6.97
1906	3.60	4.01	4.56	5.18	6.32
1905	3.40	3.91	4.43	5.19	6.34
1904	3.35	4.05	4.60	5.81	7.33
1903	3.31	4.10	4.63	5.69	7.27

The increase in the return to be obtained from municipal securities in the last seventeen years has been 1.76%, or an increase of 53.33% over the return then available.

have the advantage over private corporations in obtaining funds. Moreover, in event of new legislation on this subject the issues now outstanding would not be affected. As a matter of fact, the elimination of the tax free feature, would make the old issues more valuable. The foregoing short table gives the increasing returns to be obtained from municipal issues over a series of years and shows how attractive they have recently been to wealthy investors desiring non-taxable investments.

Real Estate Bonds

"Real Estate Bonds" as they are known, are series of bonds issued by a mortgage company formed for that purpose. They are secured by mortgages on real estate. They really do not differ from an ordinary mortgage transaction. There are a large number of companies engaged in this business in this country. The strong feature of bonds of this type is the stability of or constant increase in the values behind them. Moreover the value of real estate to industry of all kinds assures a constant if not increasing return from its use.

Elements of Risk

It must not be be presumed, however, that on account of this stability of value and income, there is no risk attached to this type of investment. The risk lies, not in the question of real estate as an industry, but in such factors as the following:

Changes in certain real estate values	Depreciation
Rental during depression periods	Judgment in values

It will be seen immediately that the questions given above apply rather to residential and business real estate than to farm land or buildings. These risks can, however, be carefully minimized. This is done by our strongest bond and mortgage companies. Changes in real estate values do not occur from a nation-wide standpoint, except a change toward higher values. Changes in local conditions can be minimized by scattering the investment. That is, in a series of bonds secured on real estate,

the latter should be chosen from differing localities, where possible. If not possible, the bonds should be secured on real estate in various portions of the same city. Depreciation can be carefully allowed for and that this is done should be noted. Diversification will offset the question of rentals during depression. This means diversification of industry as well as locality. Judgment in valuing brings in the human equation. The investor can see that precautions have been taken to insure a judicial appraisal. Such care is scrupulously exercised by our large real estate bond houses.

Advantages and Disadvantages

Real estate bonds assure stability of price as well as income and value, if well chosen. They are usually issued for a short term. These factors make them a much sought after investment by discerning investors during periods of advancing commodity prices. The recurring maturities give the investor the opportunity to obtain the increasing returns that are bound to follow rising prices. On the other hand, an investment in real estate bonds is not so attractive during a period of declining commodity prices, as the desire of every investor in such a period should be to get into sound long term issues that give a high return. If this is done, not only will the investor receive a high return, but also appreciation in price. Unless bonds are of long maturity, this is not possible.

Federal Farm Loan Bonds

These bonds are real estate bonds with a fairly long maturity. While they are not an obligation of the United States Government, they have its backing. These bonds can only be first mortgages. The Federal Farm Loan system was formed in 1917, with an elaborate organization, to loan money to our farmers. The bonds, which have been offered to the public, are secured by loans made up to 50% of the appraised value of farm land and up to 20% of the permanent improvements. The uses to be made of these loans must be stated clearly and ex-

treme care is used in making the appraisals. The bonds run for twenty years and are issued in denominations of $25, $50, $100, $500, and $1,000.

Repayment of Loans

The holders of these bonds are further protected by very stringent restrictions in regard to the repayment of the loans. Every mortgage contains an agreement that the borrower will repay on an amortization plan. He must pay an amount at least annually sufficient to cover interest charges and all expenses; also an amount sufficient to retire the total debt within an agreed period. This period cannot be less than five years nor more than forty.

General Liability

Another condition that is of great value to the prospective purchaser of these bonds is that not only is the Federal bank issuing certain bonds liable for the payment of the interest and principal on those bonds but it is also liable for the bonds put out by other banks in the system. In other words, a joint liability exists. This security is in addition to the security of the mortgage itself.

Tax Exemption

Federal Farm Loan bonds are exempt from all Federal and state taxes, including income taxes. As in the case of municipal issues, although perhaps more pronounced, there has been considerable agitation recently against this tax exemption. It has been argued that the entire idea of the Federal Farm Loan System is wrong, that it is class legislation. The best legal opinion, however, has upheld the steps that have been taken. Bondholders have nothing to fear from such an agitation, because, as in the case of municipals, whatever is done in the future in regard to tax exemption can hardly affect outstanding issues. Federal Farm Loan bonds form one of the most attractive non-taxable investments available.

CHAPTER X

READING AN OFFERING CIRCULAR

Position of Prospective Investor

Buying investments that are listed on our large stock exchanges, which have a fairly broad market, calls for analysis along the lines indicated in the foregoing chapters. Buying new offerings which are necessarily unseasoned and for information on which the investor must rely to a considerable extent on the offering circular, calls not only for analysis of that type, but a somewhat more detailed inquiry.

It seems to us that in scrutinizing a new issue, investors should endeavor above all else to keep their viewpoint broad and not narrow it down simply to the statements or figures given in the offering circular. Moreover, analyzing an offering circular is a procedure that really calls more for a strict common sense interpretation than for anything else. It must be remembered, for example, that the issuing corporation stands in the position of submitting all possible arguments to influence the investor to loan his money, or become a limited partner in the enterprise, if it is a preferred stock, under the conditions stipulated in the circular.

The mutual interest demands a high degree of security. It is, however, the natural desire of the corporation to obtain the money on as favorable terms as possible. The interest of the investor is to get as high a return as possible, at the same time obtaining a high degree of safety. To repeat a little, we will say, in illustration, that this is the reason why most bond offerings at the present time are of short term nature. Corporations do not wish to pay high rates for any longer time than is necessary. Under such conditions, investors often find old established seasoned issues that are far superior to any of the new offerings.

Nature of the Business

In taking up an offering circular, it seems to us that the factor of immediate interest is the nature of the business transacted by the company offering its securities. The experiences of the past five years have shown that the investor, with a knowledge of the fundamentals, will gain by keeping the probable trend of interest rates and commodity prices fixed in his mind. Under changing conditions he makes a distinction between investments in railroads, public utilities and industrials. The investor immediately realizes that, under advancing commodity prices, for example, the public utility is bound to operate at a disadvantage compared with the industrial, so under such conditions he favors industrial investments, under declining prices — vice versa.

The next consideration should be in regard to the essential or non-essential character of the business. Under this consideration would come a decision as regards the probable future. The difference between the outlook of electric lighting, gas, electric power or street railway companies as a class, for example. If the offering was an industrial, the question would be one of luxury or staple industry. A still further consideration, under this heading, is that of the probable expansion of the business. Has it reached, is it approaching its saturation point, or does the prospective investor feel that the limits of expansion are far in the future?

Location of the Enterprise

Here again the factors to be considered differ among various types of enterprise. In a public utility, for example, the location of the enterprise as regards the cities served and the probability of their future growth would be a factor of great importance. Other factors would be the transportation facilities. If a steam power company, the proximity of hydro-electrics and other local conditions bearing on the costs of operation. In an industrial the question of locality is more bound up with the question of the labor supply and the nearness of the market for the product.

Our country is now sufficiently developed so that with the exception of a few short line properties, the location of our railroads needs little study. There is one question in this field, however, that is coming to the front. That is the location of the property as regards growing motor truck competition. In considering new securities from the standpoint of location of the property, clients can profitably re-read Chapter Five in the text, "Launching a New Enterprise," which covers this factor from the standpoint of the issuing corporation.

Capitalization

This question is of more common nature in all classes of enterprise. In considering it, the first point is its nature or character. What proportion of the company's capitalization consists of stock? What of bonds? Here again we can refer clients to the text: "Launching a New Enterprise," Page 32, under the caption: "Determining the Corporation's Financial Structure." This shows particularly the relations that should be established between the bonds and preferred stocks of an issuing corporation and its total asset values, in order to keep them within conservative limits.

Under a consideration of capitalization should come, we believe, the question of equity behind the present offering. It can be readily appreciated that, if the offering is a junior bond or preferred stock followed by a relatively small amount of common stock, such equity is not large. If, however, the offering is a first mortgage bond, followed by an equal or greater amount of preferred and common stocks paying a good dividend, the stockholders equity in the property is valuable and is in turn an added security behind the bond.

Purposes of the New Issue

The next factor that should be scanned is the purpose for which the new bond or preferred stock is put out. If it is for purposes of expansion, is it the opinion of the investor that approaching conditions, as he views them, warrant expansion in

that particular type of industry? For example, at the present time, in view of the developments of the past ten years, no one would question the wisdom of expansion in our railroad facilities. On the other hand, if a luxury making industrial is offering a security for the purpose of obtaining funds to build additional plants, the wisdom of such a course after four or five years of extraordinary prosperity, is at least questionable.

If the purpose of the issue is to replenish working capital, the degree of accomplishment should be studied with interest. That is, the investor should figure, from the balance sheet given, what the working capital position of the company was prior to receiving the money from the new issue. If its position was weak, it should be determined, if possible, why it was weakened, and whether the turning of liquid into fixed capital will be justified by probable future developments. The investor should make up his mind, to his own satisfaction, that the renewed working capital would be sufficient to carry the company, as far as may be determined, without further issues of notes or preferred stock in the immediate future.

Amount of the New Issue

The amount of the new issue to be sold should be studied in relation to the outstanding obligations. If a property is issuing bonds or preferred stock equivalent to its outstanding bonds or preferred stock, or if a company is placing an initial fixed charge against the property, the factors behind the new issue must be studied much more carefully than in the case of a company which is putting out bonds, we will say, equal to only about 25% of its present outstanding indebtedness.

Whether the mortgage is open or closed should be considered. An open mortgage will doubtless mean further issues of the same type, which will, of course, tend to depress or at least restrain the price of the present issue until all the offerings become absorbed and seasoned.

Retirement features are another point of interest. If the retirement of the bonds is accomplished through a sinking fund

the investor can rest assured that his position will improve constantly as the sinking fund gradually retires the issue. If, however, the retirement is by calling as a whole which would take in all the issue at a slight premium above par, its value to the investor is more questionable. It is natural to suppose that the bonds or preferred stock will not be taken in at a premium unless it is to the advantage of the company to do so. It will not be done unless the company is in a strong position. Under these conditions, investors, it can be conceived, might much prefer to continue the investment rather than lose it.

Here again, the question of long term and short term securities comes up. In periods which forecast declining commodity prices offerings with a long time to run, without retirable features, are to be desired, given a high degree of security. Short term notes are to be desired under opposite conditions.

Security

In considering security, the mortgage or lien, if the offering is bonds, should be taken up first. Naturally the issue most desired is a straight first mortgage. For reasons which we have discussed, however, such issues are not obtainable in large quantities, particularly among our stronger corporations. In considering prior liens on a part or all of the property, they should be considered from the standpoint again of whether they are open or closed mortgages and what retirable sinking fund features they carry. It is, of course, clearly to the interests of the purchaser of a general or second mortgage bond to have the first mortgage issue carry either a sinking fund or the possibility of redemption. In the case of a preferred stock, a study of the security should consist to some degree, of a consideration of the value of the restrictions placed around it. In the last analysis, however, the preferred stockholder, being a partner in the enterprise, depends on the earnings for his security.

Earnings

In taking up the question of earnings, let us say that too many offering circulars simply give the latest earnings. This

is a mistake, as it is impossible to get a line on any corporation from a study of a single yearly period. For example, the earnings of even the past two or three years of many of our industrial properties would give little indication of what they might be able to do under that much abused term — normal conditions. If the offering circular does not go into detail, we feel that investors, wherever possible, should, of their own accord, look back over a sufficient period to take in both depression and prosperity and thus get average conditions.

It must be remembered, of course, that surplus earnings, plowed back into a property, will certainly tend to develop an increasing ratio of net earnings to fixed charges, irrespective of depression or prosperity. With this qualification, however, a study of earnings over a series of years should certainly be made. Not only the margin over fixed charges should be considered, but also the actual costs of conducting the enterprise.

The statement of earnings given in the circular should be looked at carefully to determine whether the fixed charges on the new securities offered are included in the total charges given. If they are, and the earnings as given do not include an estimated increase from the improvements to be made, such a statement can be considered as thoroughly conservative.

Balance Sheet

The most important item to a prospective investor in the balance sheet that should be given with every new offering is the working capital position of the company; that is, the ratio of current assets to current liabilities. The text: "Internal Financial Management" on Page 27 discusses this factor from the standpoint of industrial enterprises. It shows that on the average, the working capital of an industrial should be between 45 and 50% of its permanent invested capital.

Public utilities and railroads, by the nature of their business, do not require anywhere near as much working capital. Their fixed investment is very large, and their borrowing ability at the banks not subject to the same fluctuation as an industrial.

In considering working capital position, it should be carefully noted whether the money to be obtained from the present issue has been included among the current assets or not. This has been discussed under the caption "Purposes of Issue." If it has, it will of course, make the working capital look large, and the position of the company before the new financing should be noted.

Summary

It is impossible, in a limited discussion, to go into detail in regard to these various points. We do feel, however, that after a client has become convinced that the return on the investment offered appeals to him he should, speaking broadly, follow the various steps outlined here. If he can satisfy himself, through his knowledge of fundamental conditions, taking into consideration probable developments over the next few years, that the factors above enumerated are favorable he may be quite sure that the investment is warranted. Even under such conditions, however, we would warn against believing that any investment may be laid away and forgotten. The experience of the past ten years is all that is needed to show investors the necessity of regularly following the development of the country, the trend of commodity levels, interest rates, and the development of social conditions in order to watch their investments, and keep security and return at favorable levels.

TEST QUESTIONS

"INVESTMENT SECURITIES"

The test questions outlined below refer directly to the text discussion. You will find them helpful in bringing out the vital points in the individual discussions. They may also be used for review.

1. Define yield and annual return.
2. Discuss the differing types of corporation bonds.
3. What are the permanent factors affecting bond prices?
4. Describe the last complete cycle of bond prices.
5. Describe the temporary trend of bond prices and what causes it.
6. Do you consider railroad bonds good purchases? Why?
7. What are the strong features behind public utility bonds?
8. What is the reason for their present low prices?
9. If you were buying an industrial preferred stock, what type would you buy and why?
10. What do you think of French and Italian bonds?
11. How would you study a real estate bond?
12. What are the different types of municipal issues?

ANALYSIS OUTLINE FOR UTILITY COMPANIES

Utility companies, handicapped by the war, are now returning to the strong position they previously held. In analyzing public utility securities, all the points outlined below should be kept strongly before the prospective investor.

1. Franchises
   - (*a*) Type?
   - (*b*) Do they run beyond maturity of bonds?
2. Rates
   - (*a*) On what based?
   - (*b*) Cost of service?
   - (*c*) What the community will stand?
3. Value of Plant
   - (*a*) Per cent in excess of bonds outstanding?
   - (*b*) Asset value of common stock?
4. Capitalization
   - (*a*) Per cent bonds, per cent stock?
   - (*b*) Securities issued under approval of commission?
5. Earnings
   - (*a*) Number of times bond interest earned?
   - (*b*) Operating ratio favorable?
   - (*c*) Fluctuations over series of years?
   - (*d*) Per cent of growth?
   - (*e*) Per cent decline in previous depressions?
6. Bonds
   - (*a*) Value of plant over bonds outstanding?
   - (*b*) Junior or senior mortgage?
   - (*c*) Mortgage closed?
   - (*d*) Callable? At what price?
7. Business Field
   - (*a*) Present size?
   - (*b*) Recent growth?
   - (*c*) Transportation facilities?
   - (*d*) Industries diversified?
8. Management
   - (*a*) Conservative or risky?
   - (*b*) Maintenance charges liberal?
   - (*c*) Per cent of earnings paid in dividends?
   - (*d*) Has it strong financial backing?

Garden City Press, Inc.
Newton, Mass.